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# East Europe Report

## ECONOMIC AND INDUSTRIAL AFFAIRS

No. 2121

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ROMANIA

# HUNGARIAN-SOVIET GOODS EXCHANGE AGREEMENT SIGNED

Budapest NEPSZABADSAG in Hungarian 28 Mar 81 p 3

[Statement by Peter Veress, minister of foreign trade, reported by MTI (Hungarian Telegraph Agency): "The Five Year Hungarian-Soviet Goods Exchange Agreement Has Been Signed"]

[Text] Peter Veress, and Nikolai Patolichev, the Hungarian, Soviet ministers of foreign trade, respectively, signed the trade and payment agreement between Hungary and the USSR for 1981 to 1985 on Friday in Moscow.

During the preparatory talks, the two delegations started out from the results of coordinating the 1981-1985 national economic plans, and took into consideration the obligations deriving from the production-specialization and cooperative agreements. As the press release issued about the agreement also emphasizes it, the document signed now is an obvious example of the successful growth of mutually advantageous economic cooperation between the Hungarian People's Republic and the Soviet Union, and establishes the foundations for further increasing the trade and economic links between the two countries in the time frame of the five-year plan now getting under way.

The exchange of goods projected by the agreement will be worth more than 34 billion rubles between Hungary and the Soviet Union during the years of 1981 through 1985. Metalworking machine tools, lifting and transportation equipment, roadbuilding equipment, agricultural machinery and equipment, trucks and automobiles, airplanes and aviation-technology equipment will play an important role in Soviet exports to Hungary. Soviet shipments will fulfill a significant portion of this country's needs for petroleum and petroleum products, coal, natural gas, iron ore, electrical energy, lumber, and raw cotton.

Hungary will send metalworking machine tools, communication-technology equipment, electronic-computer-technology machinery, chemical-industrial and food-industrial equipment, harbor cranes and floating derricks, and buses to the Soviet Union. Hungarian industrial and food-industrial items for general consumption: confectionary and knit goods, leather shoes, fabrics, pharmaceuticals, fresh fruit, wine, canned vegetables and fruit play an important role in Soviet imports.

"The volume and composition of the exchange of goods specified in the agreement just signed clearly indicate that both parties are endeavoring to further increase trade, and to increase the economic and trade links in a mutually advantageous manner, said Peter Veress to representatives of the Hungarian press after the signing ceremony. "As it is emphasized also by the resolution of the 12th MSZMP Congress, expanding and increasing our cooperation with the Soviet Union and the other CEMA countries is a basic requirement for our economic growth. The document just signed is in total harmony with this finding of the congressional resolution.

"For Hungary, economic cooperation with the Soviet Union and the foreign trade growing on this foundation are of definitive significance; they are the basic conditions for our economic growth. Among our foreign-trade partners, the Soviet Union occupies first place among our customers as well as among our suppliers. Keeping with past practice, which has worked out so well thus far, signing the 5-year agreement for the exchange of goods was preceded by detailed discussions which far-reachingly took into consideration the results of coordinating the national economic plans. From the large number of important viewpoints, the two delegations paid particular attention to insuring that the mutual deliveries of goods promised in the agreement would contribute as much as possible to implementing the basic tasks defined in the national economic plans of the two countries. The numbers indicating the size as well as composition of trade show that this effort of ours was successfully implemented.

"From the viewpoint of our national economic growth, it is of outstanding importance that in the next 5 years our Soviet partner will also insure our supply with the most important energy sources and raw materials which are indispensable for the Hungarian national economy. The Soviet Union supplies a significant portion of our needs for petroleum, various oil products, natural gas, electrical energy, metallurgical coke, coal, iron ore, wood products, and cotton. We buy significant quantities of modern machine tools, roadbuilding and construction-industrial equipment, lifting and transportation equipment, agricultural machinery, trucks, automobiles, and aviation-technology equipment from our Soviet partners. We will be able to build several large industrial facilities using valuable Soviet equipment; the Paks Nuclear Power Plant, and the continuous steel casting plant, the new coke chemical works, and the ore concentration facility at the converter steel production plant of the Danubian Iron Works are outstanding examples of this.

"The Soviet Union's orders realized in the long-range agreement for exchange of goods make it possible for us to sell about one-third of the annual production of our machine industrial branches manufacturing investment goods, and in some cases an even higher ratio than this, to the Soviet market, Our confectionary industry, knit goods industry, and shoe industry contribute to supplying the Soviet population with consumer goods. We will continue to supply significant quantities of pharmaceuticals, and fresh fruit as well as canned vegetables and fruit generally loved by Soviet shoppers.

"The forms of economic cooperation which are being implemented within the CEMA and within the framework of its bilateral and multilateral integration measures and goal-oriented programs, and which serve to accelerate the growth of our national economies, to modernize our production structures, have gained strength in recent years and will continue to grow also in the next 5 years.

"During the last five-year plan, about one-fifth of our imports from the Soviet Union, and about one-third of our exports to the Soviet Union were implemented on the basis of specialization and cooperative agreements. For the next plan's time period we have expanded these types of agreements bilaterally with the Soviet Union, modernized them to correspond to the requirements, and extended their time spans. We will continue our automobile industrial cooperation on the basis of specialization and cooperative agreements, and also the two-way deliveries implemented within their framework. We will increase our trade of nuclear-energetics machinery, of various machinery industrial productive subassemblies, prefabricated products, and spare parts. By doing this, we are also emphasizing the significance of the more modern forms of economic cooperation.

"Raising the level of technology and improving quality are important elements and conditions of improving our economic links, based on experiences of the past time period. We are convinced that for products which reach only average standards, we do not have, and we will not have any assured and lasting sales opportunities either in Hungary or in the Soviet Union," said Peter Veress among other things.

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# RESULTS OF EXPERIMENT IN EAST BOHEMIAN INDUSTRY VIEWED

Prague FINANCE A UVER in Czech No 1, 1981 pp 50-56

[Article by Engr Eva Jindrova, Czech Statistical Office, Kraj Administration in Hradec Kralove: "Results of the Comprehensive Experiment in Efficiency and Quality Management in East Bohemia Kraj's Industry"]

[Text] Realization of the Comprehensive Experiment in Efficiency and Quality Management, which has been in progress since 1978 at selected economic production units, is a fundamental step toward fulfilling the conclusions that the 15th CPCZ Congress adopted in the area of perfecting planned management. In East Bohemia Kraj, 19 industrial production organizations are participating in this experiment. In most indicators the results attained at the experimenting organizations conform to the intentions and assumptions of the experiment. They prove that the new rules favorably influence the advancement of production efficiency and support the efforts to speed up product innovation and quality improvement, even though the progress to date has not been unambiguously optimal in every case, due to the complexity of the initial conditions.

## Production Goal Fulfillment

Although fulfillment of the quantitative indicators of production does not belong among the most important criteria according to the rules of the experiment, their fulfillment is proceeding on the whole favorably. In 1979, the experimenting organizations even achieved results significantly better than those of the nonexperimenting ones (see Table 1).

All the experimenting organizations fulfilled their commodity production plan, in both years. In the fulfillment of the gross industrial production plan only Elitex in Usti nad Orlici fell short (by 0.8 percent) in 1978; and TOS [Machine Tool Factories] in Svitavy (by 1.2 percent) and Kovofinis [Metal Finishing] in Ledec nad Sazavou (by 0.9 percent), in 1979.

Timewise the first half of 1980 does not lend itself to comparison with the preceding two annual periods, but as a guide it may be established that the gross inddustrial production plan, commodity production plan, and the output plan were overfulfilled also in the first half of 1980.

Table 1.

| ukazatel (1) | | 1978 | | 1979 | |
|---|---|---|---|---|---|
| | | (2) plnění (%) | index 1978/1977 | plnění (%) | index 1979/1978 |
| výroba zboží (3) | A | 100,7 | — | 101,5 | — |
| | B | 100,7 | — | 99,9 | — |
| hrubá výroba (4) | A | 100,5 | 102,6 | 100,9 | 105,8 |
| | B | 100,7 | 104,7 | 100,0 | 103,2 |
| upravené výkony (5) | A | 100,7 | 103,7 | 101,0 | 105,8 |
| | B | 100,8 | 104,8 | 100,0 | 103,8 |

Key: A. Experimenting organizations
B. Entire industry
1. Indicator
2. Fulfillment (percent)
3. Commodity production
4. Gross industrial production
5. Adjusted output

The value added indicator belongs among the new criteria whose effectiveness is being verified experimentally. It expresses the production unit's actual contribution, realized through its own production activity. Its purpose is to help eliminate undesirable cooperation between enterprises, and to abandon material-intensive production. The enterprises overfulfilled by far the goals set by this indicator.

Unlike in the first year of the experiment, in the subsequent period the enterprises focused attention to a much greater extent on accepting stepped-up plans. Whereas five organizations accepted higher goals in 1978, already eleven did so in 1979. In absolute terms, the implementation plan increased by 37.9 million korunas or 1.4 percent over the original breakdown. Despite the high growth rate planned, the set goal was overfulfilled by 2.2 percent.

Fulfillment of the Value Added Indicator at the Experimenting Organizations in East Bohemia Kraj

| | |
|---|---|
| Original plan for 1979 (000 korunas) | 2,632,823 |
| Implementation plan for 1979 (000 korunas) | 2,670,716 |
| Actual value added from the start of the investigated year | 2,730,707 |
| Actual value added during same period of preceding year | 2,491,816 |
| Fulfillment of 1979 implementation plan (percent) | 102.2 |
| Fulfillment of cumulative implementation plan (percent) | 101.9 |
| Index 1979/1978 | 109.6 |
| Index 1978/1977 | 106.0 |

All the experimenting organizations attained in the second year the planned volume of value added; 1978, only Elitex in Tyniste nad Orlici fell short (by 9.7 percent), due to inadequate linkage between the production plan and the financial plan.

Very good results were attained also in the first half of 1980. The goals set by the plan were overfulfilled 3.7 percent, which means that the increase was nearly double in comparison with the overall development in industry. The increase over the preceding year was 7.9 percent.

From the structure of value added it follows that the principal factor influencing its rise is the high growth rate of profit, at relatively low growth rates of all the other items of productive consumption that participate in its formation (see Table 2).

Table 2. Principal Factors of Value Added at the Experimenting Organizations

| ukazatel (1) | skutečnost k 31. 12. 1979 (mil. Kčs) (2) | plnění prováděcího plánu (%) (3) | | index | |
|---|---|---|---|---|---|
| | | 1979 | 1978 | 1979/1978 | 1978/1977 |
| materiálové náklady bez spotřeby materiálu (4) | 732,4 | 100,9 | 99,4 | 104,1 | 102,6 |
| služby nemateriální povahy (5) | 65,6 | 92,5 | 96,9 | 95,4 | 101,3 |
| mzdové náklady (6) | 953,7 | 100,7 | 100,6 | 103,3 | 103,9 |
| zisk (7) | 782,9 | 106,8 | 106,9 | 128,8 | 118,4 |
| podíl zisku na vlastních výkonech (8) | 28,67 | 104,5 | 105,3 | 117,6 | 111,7 |

Key:

1. Indicator
2. 31 Dec 79 report (million korunas)
3. Implementation plan's fulfillment (percent)
4. Cost of materials, excluding material consumption
5. Services of a nonmaterial nature
6. Labor costs
7. Profit
8. Proportion of profit in relation to value added

From the development of the value added indicator it thus follows that the application of this criterion is a truly suitable instrument of coordination and motivation, one that influences the production structure from the viewpoint of relations with the managements of the producing subdivisions, and of commercial activity as well.

Product Innovation and Quality

Although the rules of the experiment reinforce the enterprises' interest in the qualitative aspects of the production process, the results in this area still leave something to be desired. Product innovation has increased at most of the organizations, but the overall share of new products in the experimenting organizations' production program declined in comparison with both 1977 and 1978. Significant reserves likewise remain in the technological level and quality of the products.

The value of new products at the experimenting organizations amounted to 848.7 million korunas in 1979, 5.8 percent less than the preceding year.

Their share of the output thus dropped from 14.2 to 12.6 percent. The overall decline, however, was influenced by only two organizations: Elitex in Cerveny Kostelec, where the output of new products dropped by 165 million korunas or 80.8 percent in comparison with 1978; and Elitex in Usti nad Orlici, where the output of new products dropped by 116 million korunas or 42.1 percent. Despite the mentioned decline, however, both enterprises overfulfilled their planned goals in this area. On the other hand, product innovation increased at two-thirds of the experimenting enterprises.

In the second year of the experiment, a partial improvement occurred in the area of the products' quality and technological level. The value of the products in quality grade 1 reached 258.6 million korunas, 68.3 percent more than in 1978; their share within the total volume of graded production increased from 8.1 to 11.7 percent. Only 0.1 percent of the produced commodities were assigned to quality grade 3 in 1979. A favorable factor was the fact that highly sophisticated products, which stand comparison with the top products on the world market, were assigned to production on a significantly greater scale (see Fig. 1).

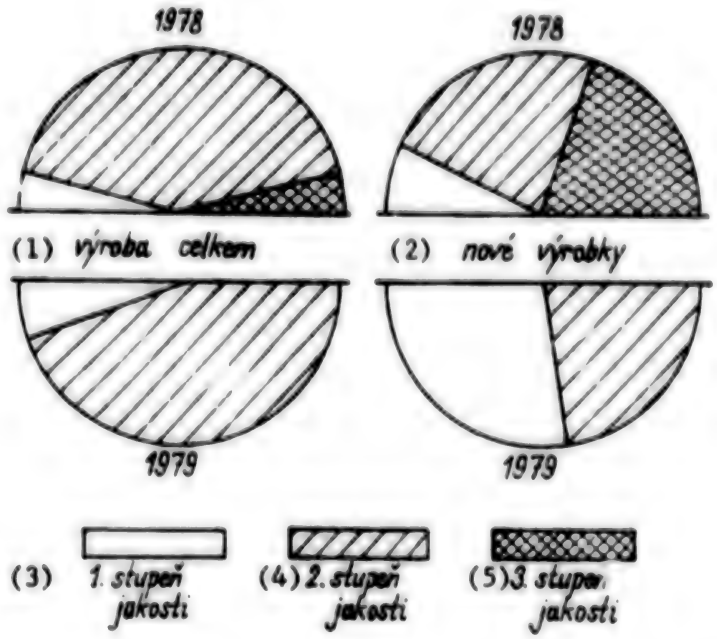


Figure 1. Results of Evaluation by State Testing Laboratories (in Percent of the Total Volume of Products Tested)

Key:

1. Total production
2. New products
3. Quality grade 1
4. Quality grade 2
5. Quality grade 3

From the data for the first half of 1980 it follows that the favorable trend of improving product quality is continuing. The volume of products assigned to quality grade 1 increased by 61.2 percent over the same period of the preceding year, attaining 133 million korunas in six months. In relation to the overall production volume evaluated by state testing laboratories, the proportion of products of top quality increased by one-fourth.

The value of technologically obsolete products totaled 5.1 million korunas in 1979, a decline of nearly 75 percent in comparison with the preceding year. Only Elitex in Tyniste nad Orlici had such products in its production program. The annual decline in 1978 over 1977 was 20 percent.

One of the incentives intended to stimulate the improvement of product quality is the markup on goods assigned to quality grade 1, or on goods rated as luxuries or fashion novelties. In 1979, eight of the experimenting enterprises availed themselves of this opportunity to improve their economic results. The markups totaled totaled 52.9 million korunas, which was 27.1 percent more than in 1978. The rising trend of markups continued also in the first half of 1980.

In the second year of the experiment, five of the organizations were penalized with markdowns for products that were technologically obsolete or of inferior quality. The markdowns totaled 644,000 korunas, a decline of 78.3 percent in comparison with the preceding year. This trend of continuing decline was observed also in the first half of 1980.

A partial improvement occurred also in the area of claims. The value of the presented claims dropped by 36.5 percent in the first year of the experiment, and by 19.6 percent in the subsequent period. Despite the experiment's indisputable effect, claims remain high: total claims of 187.2 million korunas in 1979 represented 2.8 percent of commodity production. Two enterprises accounted for the bulk of this total: Elitex in Tyniste nad Orlici (111.6 million korunas), and Elitex in Usti nad Orlici (48.4 million korunas).

The costs of settling claims dropped by 12.5 percent in the first year of the experiment, and by 0.6 percent the following year. The overall results are offset by developments at the individual enterprises. The favorable development in 1979, for example, was influenced decisively by the results at Elitex in Usti nad Orlici, where the costs of settling claims dropped by 715,000 korunas or 37 percent in comparison with the preceding year. On the other hand, the costs of settling claims rose at eleven of the organizations, with the sharpest rises occurring at Rubena in Nachod (by 321,000 rounas) and at Elitex in Tyniste nad Orlici (by 227,000 korunas). In the first half of 1980, the costs of settling claims dropped by 5.2 percent in comparison with the same period of the preceding year.

## Sales

The comprehesive experiment's system of economic indicators clearly aims to ensure a production structure that meets the customers' needs. Therefore, primarily the enterprises' self-interest is being strengthened in fulfilling the planned deliveries to the individual economic destinations of final use.

The experimenting organizations exceeded their goals in fulfilling the plan of final sales, during both years of the experiment, at a substantially higher growth rate than at the nonexperimenting organizations. Deliveries for investments were overfulfilled by far in both years. Although in 1978 the experimenting organizations did not fulfill the planned volume of export to nonsocialist countries (the shortfall was caused primarily by Elitex in Cerveny Kostelec, and Elitex in Usti nad Orlici), in the subsequent period the planned goals were even overfulfilled, in spite of a relatively high planned increase. Thus in 1979, in fulfilling the plan of sales by individual economic destinations, the experimenting organizations achieved better results than industry as a whole did (see Table 3).

Table 3.

| (1) ekonomické směry odbytu | (2) plnění (%) | | index | |
|---|---|---|---|---|
| | 1978 | 1979 | 1978/1977 | 1979/1978 |
| experimentující organizace (3) | | | | |
| finální odbyt (4) | 101,3 | 102,0 | 113,2 | 107,9 |
| v tom: (5) | | | | |
| odbyt pro investice (6) | 126,9 | 110,6 | 119,2 | 76,2 |
| odbyt pro vnitřní obchod (7) | 103,6 | 100,6 | 112,2 | 102,2 |
| vývoz do socialistických zemí (8) | 108,3 | 103,1 | 134,0 | 102,6 |
| vývoz do nesocialistických zemí (9) | 81,4 | 100,9 | 88,2 | 145,2 |
| průmysl celkem (10) | | | | |
| finální odbyt (4) | 101,7 | 103,3 | 103,7 | 104,9 |
| v tom: (5) | | | | |
| odbyt pro investice (6) | 114,1 | 111,8 | 103,1 | 111,4 |
| odbyt pro vnitřní obchod (7) | 99,5 | 100,2 | 104,3 | 101,9 |
| vývoz do socialistických zemí (8) | 104,1 | 102,9 | 106,8 | 102,7 |
| vývoz do nesocialistických zemí (9) | 96,5 | 99,9 | 99,0 | 104,7 |

Key:

1. Economic destinations of sales
2. Fulfillment (percent)
3. Experimenting organizations
4. Final sales
5. Including
6. Deliveries for investments
7. Deliveries to domestic trade
8. Export to socialist countries
9. Export to nonsocialist countries
10. Entire industry

While in 1978 four of the organizations did not fulfill their planned goals for export to nonsocialist countries, a year later all the experimenting enterprises fulfilled the plan. Only ZAZ [Antonin Zapotocky Works] in Jaromer failed to fulfill the plan of export to socialist countries.

It can be established that the favorable trend in fulfilling the sales plan and its structure is continuing also in 1980. Especially good results were achieved in export to socialist countries, which increased by 21.0 percent over the same period of the preceding year, surpassing thereby the plan's estimate by 8.3 percent.

The efficiency of export at the experimenting organizations is significantly higher than at the nonexperimenting enterprises. However, the planned goals for increasing the efficiency of export were not met entirely in the first two years (see Table 4).

Table 4. Efficiency of Export (Prices Free Border/Wholesale Prices)

| | skutečnost k 31. 12. 1979 (1) | (2) plnění (%) | | index | |
|---|---|---|---|---|---|
| | | 1978 | 1979 | 1978/1977 | 1979/1978 |
| experimentující organizace (3) | | | | | |
| vývoz do socialistických zemí (4) | 174.13 | 98.3 | 99.4 | 103.9 | 102.5 |
| vývoz do nesocialistických zemí (5) | 106.83 | 90.1 | 102.3 | 98.5 | 110.3 |
| průmysl celkem (6) | | | | | |
| vývoz do socialistických zemí (3) | 132.56 | 100.8 | 99.5 | 104.1 | 102.9 |
| vývoz do nesocialistických zemí (4) | 95.20 | 97.6 | 103.6 | 101.2 | 107.0 |

Key:

1. 31 Dec 79 report
2. Fulfillment (percent)
3. Experimenting organizations
4. Export to socialist countries
5. Export to nonsocialist countries
6. Entire industry

In export to socialist countries, nonfulfillment of the planned ratio of prices free border to wholesale prices was influenced by five of the organizations. During the investigated period, three of the organizations failed to fulfill the implementation plan with respect to increasing the efficiency of foreign trade with nonsocialist countries.

During the first half of 1980, the experimenting organizations exceeded the planned goals for increasing the efficiency of export. Good results were achieved particularly in export to nonsocialist countries, where the planned level was ensured 108.3 percent, at a 17.6-percent increase over the preceding year.

Financial Management

Financial management is one of the most important areas within the experiment, because it reflects the results and effects of an entire series of

measures introduced in conjunction with the experiment, and its indicators are linked essentially to all other activities of the experimenting organizations.

Profitability in relation to production assets is one of the experiment's principal indicators that synoptically characterize economic efficiency. In comparison with the indicator of profitability in relation to costs that was used earlier, it reflects not only the level of labor expenditure but also the other aspect of economic efficiency, i.e., the utilization of assets.

From the development of profitability at the experimenting organizations it follows that here the economic processes were more effective than what the plan had anticipated. The results are more favorable also in comparison with the development in entire industry (see Table 5).

Table 5. Development of Profitability in Relation to Production Assets

| | skutečnost 1978 (1) | (2) plán (%) 1978 | 1979 | index 1978/1977 | 1979/1978 |
|---|---|---|---|---|---|
| experimentující organizace (3) | 10,30 | 108,0 | 108,3 | 112,0 | 122,8 |
| průmysl celkem (4) | 9,11 | 101,0 | 100,9 | 106,7 | 106,7 |

Key:

1. 1979 report
2. Fulfillment (percent)
3. Experimenting organizations
4. Entire industry

The planned level of profitability was maintained in 1979 by all the organizations, with the exception of ZAZ in Jaromer (99.9 percent fulfillment); the cumulative plan was not fulfilled by Elitex in Tyniste nad Orlici (95 percent fulfillment). Profitability increased over the preceding year at all of the experimenting organizations. Outstanding improvements in efficiency occurred particularly at Sigma in Ceska Trebova where the increase over the preceding year was 40.1 percent; and at Kovofinis in Ledec nad Sazavou (by 46.0 percent). The favorable trend of rising efficiency continued also in the first half of 1980 when the overwhelming majority of the organizations exceeded by far the targets of the plan. A shortfall was reported only by Gumokov [expansion unknown] in Hradec Kralove (89.5 percent fulfillment).

The rise of profit was the main factor that influenced the development of profitability. Although the experimenting enterprises adopted for 1979 a profit plan of 732.9 million korunas as compared with the original breakdown of 682.7 million, they fulfilled this goal 106.0 percent and exceeded the original plan by 13.8 percent. In all, ten organizations adopted a stepped-up plan. Among them we might mention, for example, Elitex in Usti nad Orlici where the original plan called for 6.6 million korunas of profit and then the implementation plan reached 29.8 million. The actual

profit at this enterprise was 31.9 million korunas. In the same way as in the first year of the experiment, all the organizations fulfilled the implementation plan also in the second year. Profit rose over the preceding year by 18.4 percent in 1978, and then by 28.8 percent in 1979. Profit did not decline to the preceding year's level at any on the organizations. During the first half of 1980, profit at the experimenting units jointly increased by 16.3 percent, while the plan was overfulfilled by 10.6 percent.

It follows from a factor analysis of the increase in profit that the decisive factor behind this increase was the reduction of the material intensity of production (see Table 6).

Table 6. Structure of the Sources of Profit Increase (Decline)

| (1) Faktory přírůstku (poklesu) zisku | (2) přírůstek (pokles) zisku (mil. Kčs) | | | |
|---|---|---|---|---|
| | (3) proti plánu | | (4) proti skutečnosti | |
| | 1978 | 1979 | 1978/1977 | 1979/1978 |
| dynamika výkonů (5) | + 3,2 | + 7,5 | +15,2 | + 35,0 |
| materiálové náklady bez odpisů vč. služeb nemateriální povahy (6) | +23,1 | +46,8 | +91,3 | + 94,4 |
| odpisy (7) | + 2,2 | + 1,5 | — 3,9 | — 3,1 |
| mzdové náklady (8) | + 0,5 | + 3,1 | — 1,1 | + 23,1 |
| finanční náklady (9) | — 0,6 | — 5,6 | —40,7 | + 25,8 |
| ostatní vlivy (10) | + 2,7 | + 0,8 | +14,2 | — 0,1 |
| přírůstek zisku celkem (11) | +31,1 | +50,1 | +76,0 | +176,1 |

Key:

1. Factors of profit increase (decline)
2. Increase (decline) of profit (million korunas)
3. In comparison with the plan
4. In comparison with report
5. Growth rate of output
6. Cost of materials without depreciation, including services of a nonmaterial nature
7. Depreciation
8. Labor costs
9. Financial costs
10. Other factors
11. Total increase of profit

In 1979, the experimenting organizations succeeded in reducing from 66.50 to 15.86 percent (i.e., by 0.64 percentage point) the planned proportion of the cost of materials in relation to adjusted output. In comparison with 1978, this ratio dropped 2.0 percentage points. The reduction was influenced primarily by relative savings in the consumption of materials. In reducing the material intensity of production, the experimenting organizations attained significantly better results than the nonexperimenting enterprises (see Table 7).

Table 7. Development of Material Consumption (Proportion per 100 Korunas of Adjusted Output)

| | (1) | (2) rozdíl ve srovnání s (body) | | | |
|---|---|---|---|---|---|
| | | (3) plánem | | (4) skutečností | |
| | | 1978 | 1979 | 1978/1977 | 1979/1978 |
| *experimentující organizace* (5) | | | | | |
| materiálové náklady bez odpisů(6) | 65.86 | —0,42 | —0,64 | —1,00 | —1,33 |
| spotřeba materiálu (7) | 67,89 | —0,29 | —0,57 | —1,44 | —1,02 |
| *průmysl celkem* (8) | | | | | |
| materiálové náklady bez odpisů(6) | 66.66 | —0,26 | —0,29 | —0,66 | —1,01 |
| spotřeba materiálu (7) | 69.17 | —0,16 | —0,18 | —0,61 | —0,77 |

Key:

1. 1979 report
2. Difference (percentage points) in comparison with
3. The plan
4. The report
5. Experimenting organizations
6. Cost of materials, without depreciation
7. Material consumption
8. Entire industry

Unlike at the nonexperimenting organizations where the relationship between the growth of output and the rise of labor costs was violated in 1979, the experimenting organizations attained favorable results also in this area: here the planned proportion was reduced by 0.04 percentage point, and the reduction in comparison with the preceding year was 0.32 percentage point.

Also in the first half of 1980, the development of efficiency was influenced primarily by the results in reducing production costs: the cost of materials was reduced by 0.53 percentage point over the preceding year; the cost of labor, by 0.37 percentage point; and the financial costs, by 0.30 percentage point.

In the second year of the experiment, the experimenting organizations were able to achieve also a partial improvement in the utilization of capital assets. The capital-labor ratio increased by 5.5 percent over the preceding period; labor productivity in terms of gross production, by 5.4 percent; and labor productivity in terms of value added, by 9.1 percent. This means that the decline in the efficiency of fixed assets, which for a long time has had an unfavorable effect on the efficiency of our industry, has almost been arrested (see Fig. 2).

However, the efforts to achieve the planned reduction of inventories have remained unsuccessful. Although the inventory turnover has been shortened in both years of the experiment, the planned goals have not been fulfilled in either year:

| | |
|---|---|
| Inventory turonver time in 1979 (days) | 107.1 |
| Index 1978/1977 | 99.1 |

| | |
|---|---|
| Index 1979/1978 | 97.9 |
| Plan fulfillment (percent | |
| In 1978 | 107.5 |
| In 1979 | 108.0 |

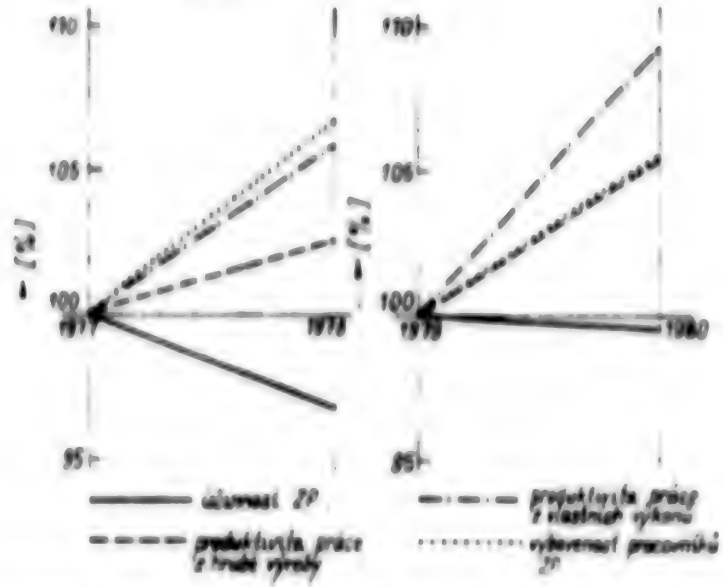

Figure 2. Development of Capital-Labor Ratio, Labor Productivity, and Capital Asset Efficiency.

——— Capital asset efficiency

– – – – – – Labor productivity in terms of gross production

– .– . – Labor productivity in terms of value added

. . . . . Capital-labor ratio

Eight of the organizations exceeded the planned level in 1979, and the same number failed to meet the set turnover time from the start of the experiment. The overall situation was influenced unfavorably especially by Elitex in Cerveny Kostelec. It exceeded the plan by 77.0 percent in 1979, and by 100.9 percent in both years. The planned turnover time has been exceeded considerably also at Elitex in [Tyniste or Usti] nad Orlici (by 28.9 percent in 1979, and by 39.9 percent cumulatively for both years).

Utilization of the reserves inherent in the management of inventories remains a problem also in the final year of the five-year plan.

Development of Wages

Overfulfillment of the value added plan--it is decisive for determining the amount of the basic component of wages payable when simultaneously there is overfulfillment of the planned profitability in relation to production assets, and of other indicators of the structure of sales that determine the formation of the incentive component of wages--was reflected

in the rise of average wages, which in 1979 was faster than the growth rate of average earnings at the nonexperimenting enterprises (see Table 8).

Table 8.

| | skutečnost 1979 (1) | (2) plnění (%) | | index | |
|---|---|---|---|---|---|
| | | 1978 | 1979 | 1978/1977 | 1979/1978 |
| experimentující organizace (3) | 2 489 | 100,0 | 100,8 | 103,4 | 103,3 |
| průmysl celkem (4) | 2 493 | 100,7 | 100,2 | 103,4 | 102,4 |

Key:

1. 1979 report
2. Pulfi' 'ment (percent)
3. Experimenting organizations
4. Entire industry

Despite the generally favorable results in fulfillment, five of the organizations did not attain the planned level of earnings in 1979 (three failed to do so in 1978). The lowest fulfillment was reported by Osinek [Asbestos] in Kostelec nad Orlici (99.2 percent). Increases over the preceding year ranged from 0.2 to 4.9 percent.

In relation to the rise of labor productivity in terms of value added, the growth rate of wages was slower by 5.8 percentage points in 1979, and by 2.5 percentage points in 1978.

In view of the generally favorable trends in the development of the overall results, the experimenting enterprises fulfilled the planned goals for wage development also in the first half of 1980.

Experience with the comprehensive experiment's realization to date indicates that the changes made in the principles of management are influencing favorably the enterprise economists' approach and attitude to efficiency and quality. Therefore most of the elements contained in the experiment have been incorporated in the Set of Measures for Improving the Planned Management System of the National Economy After 1980.

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CSO: 2400

POSITION OF CSSR CHEMICAL INDUSTRY VIEWED

Prague EKONOMIKA PRUMYSLU in Czech No 2 Feb 81 pp 46-54

[Article by Eng Jaroslav Pelc, State Planning Commission: "Problems and Objectives in the Development of the Chemical Industry"]

[Text] If we consider in a broader context all the substantive changes in the material conditions of man's life over the past 50 years, we realize that the dynamic development of the forces of production was quite distinctly characterized by the application of the achievements of chemistry in practical production and by increasingly more extensive and manifold consumption of chemical products. The fertility of agricultural lands was multiplied; the standards of human nutrition and people's health were raised; transportation and the selection of raw materials used in the process of production have changed. The structure of the consumed primary resources of raw materials and fuels changed conspicuously.

The application of the achievements of chemistry also affected fundamentally the way of life of people. Strenuous physical labor of workers in agriculture and lumbering industry has been eliminated because fuels produced by the chemical industry are available, among other things, to man.

Chemical science shares to a significant extent in the technological progress by producing new sources of power, electronic materials, construction materials, food and new types of textiles. Furthermore, it plays a part in new methods of therapy and in environmental protection.

On the other hand, a highly advanced economy makes possible an increasingly greater development of chemistry and all allied scientific disciplines. Our socialist society follows these issues constantly, giving them priority, as evident from the results achieved in the development of our chemical industry and chemization of our national economy in the past five-year plan.

Thus, for instance, 253 kg of pure nutrients in the form of industrial fertilizers were used last year per hectare of agricultural land in Czechoslovakia, i.e., the same amount as in the FRG, 38 percent more than in France, and just under 15 percent less than in the Netherlands and Denmark which are lands with the most advanced standard of farming. It is obvious that in our circumstances further improvement in the fertility of the land will depend primarily on the exploitation of biological and genetic properties of the crops, reduction of every kind of waste, improved water systems, higher quality and correct application of fertilizers rather than on the extent of their consumption. We estimate that the consumption of fertilizers in our country will increase to approximately 270 kg/ha before 1985.

In the per citizen consumption and production of synthetic fibers, the CSSR ranks among the foremost states in the world, which, naturally, is connected mainly with the high share of our textile industry in the structure of our industry and exports. As for the above-named indicator, 11.5 kg of synthetic fibers were used and all 11 kg of synthetic fibers were produced last year in our country, which is more than, for example, in Great Britain and Italy. However, the share of synthetic fibers in the total consumption of basic textile fibers in the CSSR currently amounts to approximately 33 percent as compared with about 64 percent in the United States as early as in 1975, with 46 percent in the FRG, and with 45 percent in Italy. We are still importing more than one-half of all the textile fibers we use, although quite ample reserves still exist in the chemization of our textile industry, of course, under the premise that:

--it may be possible to use efficiently more synthetic fibers primarily in the structure of our exports of textiles;

--our chemistry will improve the quality and selection of synthetic fibers it produces.

An important factor in the estimation of the prospects for the development of the manufacture of synthetic fibers in our country is the realization that we must purchase most of the essential equipment in the capitalist states, that the market of the chief consumer of our textile goods in the West, the FRG, has been oversaturated with synthetic textiles of its own production, and the same applies also for Great Britain and Italy. The FRG and the USSR need to import primarily textiles made from natural fibers. We anticipate that our production of synthetic fibers in 1985 will increase only 11 percent over 1980 because according to projections, the production of viscose staple will be temporarily reduced in the remodeled plant in Neratovice in 1985.

In the per citizen consumption of natural and synthetic rubber at 11.5 kg, the CSSR is among the first countries in the world. This prompts us to consider the positive as well as the negative facts in our economy which should be linied with that record of our rubber industry. At any rate, it appears that thus far we have been producing only 29.4 percent of our total consumption of rubber and that we are manufacturing only a very limited line of the cheapest type of rubber. When assessing the prospects for the development of synthetic rubber production in our country, the important facts to be considered are that:

--although our developed basic petrochemical industry may provide a relatively broad raw material base (butadiene, benzene and other hydrocarbons for it), we would have to import most of the necessary equipment from the capitalist countries;

--the system of socialist division of labor offers more advantageous opportunities for the development of this highly energy-consuming production in other socialist countries (USSR, GDR, Rumanian Socialist Republic) than in our country.

The production of plastics in the CSSR practically doubled during the Sixth Five-Year Plan, reaching about 900,000 tons in 1980, which converted per citizen is more than in Great Britain and Italy and almost as much as in the United States.

Last year's consumption of plastics in the CSSR amounts to about 47 kg/citizen, which is more than in Great Britain, Italy, France and Austria. Relative to the consumption of steel, it is less than in the industrially most developed countries of the world, but this indicator is strongly affected by the heavy concentration of our economy on material-intensive heavy engineering branches.

When assessing the standard of the chemization of the Czechoslovak national economy according to the inidcator of per citizen consumption of plastics, ample opportunities are still evident for their use in various branches of our national economy. By the same token, however, the estimated further growth of world prices of oil and all sources of energy prompts us to certain caution and to revisions of our prospects as regards the areas where, in terms of our national economy, it may be reasonable to raise the consumption of plastic materials in the future. Some excess in the production of several basic types of plastics (PVC, PE, PP) over their current consumption in the CSSR serves primarily to compensate for the imports of other chemical raw materials (sulphur, gasoline, crude oil, etc.) from the socialist countries as well as ti gain the necessary export funds for exports to the capitalist states. In 1980, we shall export to those countries about 140,000 tons and import roughly 26,000 tons of plastics. At the same time, however, the average price of imported, mostly special, plastics is in terms of foreign exchange about twice as high as the price of our exports.

We anticipate that in the Seventh Five-Year Plan the production of plastics in the CSSR will be expanded by about 14 percent and that their consumption will also increase in its sum total (by about 24 percent). In our opinion, these trends are correct, although the price of crude oil imported from the USSR will gradually spiral.

As a matter of fact, the new system of wholesale prices applicable as of 1 January 1981 will maintain the current wholesale prices of the basic types of plastics, although the wholesale price of crude oil will markedly escalate. The current relatively high profitability of the new modern petrochemical operations makes it possible to stabilize the prices of plastics. A long-range outlook prompts us to reevaluate carefully the economic efficiency of the consumption of individual types of plastics, particularly where their consumer cannot prove adequate profit in foreign exchange.

It is extremely difficult to compare the scope and structure of the pharmaceutical production and consumption in the CSSR with other economically developed countries in the world because of the specific method of distribution and evaluation of that production as well as because of the methodological differences in the statistics. The prognoses, however, agree that the current trend of a rapidly growing consumption, and thus also of production, in the world will also continue in the future, so that pharmaceutical consumption will increase tenfold over the next 20 years. The most economically developed countries in the world are nearly always the chief exporters of pharmaceutical products, and this branch of chemical production represents a typical economic operation in an area where highly skilled work continuously brings the greatest profits.

In the CSSR, pharmaceutical consumption and production is controlled by two national ministries of health and the pharmaceutical industry is controlled by a statewide economic production unit. A steady growth of about 8 percent is anticipated in pharmaceutical consumption for the next five-year period.

Although exports of pharmaceuticals slightly exceeded their imports until 1978, the disproportion between the growth of pharmaceutical consumption and the development of pharmaceutical production increased so much over the past 2 years that last year the deficit in the import-export balance amounted to almost Kcs .5 billion in foreign exchange. For the time being, a nearly 3 percent slowdown in the rate of production against consumption is also projected for the next few years.

We cannot accept this trend with resignation. The policies of medical care and the developmental programs of the pharmaceutical industry must be balanced and preconditions must be provided for the CSSR to gradually become an outstanding exporter of pharmaceuticals, primarily the new specialties in demand in the world. In the long-range perspective, precisely this branch of chemistry--production of pharmaceutics and specific semifinished chemical products essential for that production--should gain the greatest momentum in our country.

Next to coking coal, timber is indisputably the most important of our domestic raw materials for the chemical industry in the broader sense of that branch. In 1980, 587,000 tons of unbleached cellulose, i.e., about 32 kg per 1 cubic meter of the wood material output was produced in our country. For comparison with other countries: the GDR produced also 32 kg, the FRG 24 kg, Finland about 43 kg, Austria 53 kg, and Sweden 112 kg/cubic meter.

Contrary to the plans stipulated in the Sixth Five-Year Plan for our cellulose and paper industry for 1980, cellulose mills in Vranov, Zilina and Steti did not begin full operation last year and thus, the production of unbleached cellulose reported a 85,000-ton shortfall. However, in order to upgrade processing of produced timber, capital investment was then restricted in other sectors so as to make it possible, above the tasks of the Sixth Five-Year Plan, at this time to begin in Ruzomberok and Paskov the construction of two new cellulose mills with a total capacity of 400,000 ton/year at a total cost over Kcs 11 billion. After their completion, the CSSR will rank among the countries with the world's highest production of cellulose per cubic meter of produced wood pulp and among its foremost European exporters. The problem concerning pollution of rivers by the wood-processing chemical industry will be basically resolved. Cellulose production will rise to about 62 percent prior to 1985 and may become the fastest growing branch of our chemical production.

It is hard to assess the level of chemization achieved in the Czechoslovak national economy in a few symbolic data representing the consumption of tens of thousands of chemical products, but at least two mass chemical products should be mentioned here, namely, fuels and heating oils.

The volume of fuel consumption in every country represents an interesting comprehensive indicator of the development of its transportation system, the level of automation replacing strenuous physical labor and in general, of its population's standard of living. In 1979, 400 kg of fuels per citizen were consumed in the CSSR, while the data for 1978 report 651 kg in Austria, 1,090 kg in France, 1,361 kg in the FRG, and as much as 2,443 kg in the United States, which proves that the CSSR has not reached such relative indicators in its fuel consumption as other economically developed countries in the world. In a way, this is to our benefit because the rapidly accelerating growth of the prices of crude oil compel the whole world today to seek and test various methods of fuel conservation.

Last year's consumption of fuels in our country rose only 11 percent over 1975, which is the result of more efficient regulations of conservation over the past 2 years. It is generally known that we are still wasting fuels in many areas and it may be said that our whole economy has not become sufficiently accustomed to the necessary restrictions of their consumption. In this respect many programs for the future must be correlated.

We realize at the same time that in terms of the national economy it will be prudent for many sectors of our country's economy to anticipate for the future more widespread use of spark-ignition and compression-ignition engines even with markedly higher prices of crude oil and fuels.

Long-range considerations compel us to plan comprehensive programs to slow down substantially or stop the growth of overall fuel consumption and to reduce drastically the consumption of heating oils in our national economy. On the one hand, this is inevitable because in the future we obviously shall not be able to set up sufficient funds in foreign exchange to procure large amounts of crude oil and, on the other hand, because crude oil will increasingly have to be exploited in the CSSR more as a chemical raw material. For that reason the main direction over the next 10 years must be more efficient processing of crude oil, in other words, cracking of fractions burned now in the form of heating oils.

In the fuel and energy balance of the CSSR, imports of crude oil represent at this time 24 percent of all primary sources of energy in specific fuels, and precisely the price of crude oil is spiraling most rapidly in world markets; it is obvious that this trend will continue in the future. The solution to this problem remains, therefore, one of the crucial issues in the total concept of the Czechoslovak national economic development.

This is a very brief outline of the current situation of the CSSR with respect to the consumption and production of fertilizers, synthetic fibers, plastics, rubber, pharmaceutics, cellulose and fuels which, together with heating oils, represent the main production and consumption of chemical products in our national economy. When defining the concept for the further development of the Czechoslovak chemical industry the following relevant facts should be noted as the cause of our greatest anxieties in the planning of the Seventh Five-Year Plan:

1. The total import and export balance of chemical products (including paper, pharmaceutics and fuels) is negative (even after deduction of imported crude oil), particularly as concerns the nonsocialist countries. Thus far, we have been exporting primarily fuels, rubber, paper products and basic plastics, and importing mainly products of organic synthesis, rubber, inorganic raw materials and products, as well as cellulose, pharmaceutics and other products of the so-called small-scale qualified chemistry.

It is absolutely imperative over the next few years to improve the overall structure in imports and exports of chemical products and to use the international division of labor in the chemical industry to curtail further imports of those chemical materials for whose efficient porduction the CSSR has a realistic potential. In order to improve foreign exchange balances with the nonsocialist states, the production of such chemical products should be developed on a priority basis if there is sufficient evidence of prompt gain of foreign exchange and their concurrent domestic consumption or direct export to the most sophisticated foreign markets.

2. In 1976-1980, more than 47 percent of the total required delivery of machinery and assemblies for investments in our chemical industry had to be imported from the capitalist states, and their value amounted to Kcs 11 billion, all charges paid.

The categorical imperative to balance the foreign-exchange payments of our state in individual years of the Seventh Five-Year Plan permits as for the time being to anticipate that the imports of machinery and assemblies from the capitalist states for our chemical industry will reach a maximum of Kcs 5 billion in future current prices. As compared with the Sixth Five-Year Plan, this volume represents less than one-half of the machine technology imported from the capitalist states.

Thus far the realistic concepts about potential deliveries of machinery and equipment for our chemistry from our own machine engineering industry in 1981-1985 are also well below the level of the Sixth Five-Year Plan. Thus, for instance, the vital VHJ [economic production unit] of the chemical machine engineering industry--Chepos--envisages the following distribution of its production (in percent):

| | Sixth Five-Year Plan | Seventh Five-Year Plan |
|---|---|---|
| Exports to the USSR | 53.3 | 54.0 |
| Exports to other socialist countries | 6.3 | 6.5 |
| Exports to nonsocialist countries | 7.0 | 7.1 |
| For domestic investments | 17.0 | 9.5 |
| of which for the chemical and pharmaceutical industry | - | 8.0 |
| Other sales | 16.4 | 22.9 |

The topical focus and linkage of our chemical-technological research and of the construction and capacity planning for the production of the necessary equipment and instrument technology in our chemical machine engineering industry has been interrupted during the Sixth Five-Year Plan. One may figuratively say that our domestic machine engineering base has become alienated to the needs of the investment development maintenance of our chemical industry.

Both these adverse trends in the development of the sources for the machine technological base of our chemical industry render the planning of its future development extremely dififcult and are only partially attenuated by a certain rise in the opportunities for imports of chemical equipment from other socialist countries.

As for our chemical industry proper (excluding cellulose and paper production), we anticipate that the production will increase about 12 percent over the next 5 years, i.e., at a rate markedly below that of the Sixth Five-Year Plan.

Nevertheless, I do think that in many respects this objective will be far more difficult to achieve than the more rapid development of production during the past five-year plans.

Decisions concerning the scope of modernization of fixed assets and the selection of construction projects for new production capacities of our chemical industry must proceed from considerations of the highest possible returns on fixed assets and of the highest possible income in foreign exchange from the production in relation to the inevitable imports of equipment from the capitalist countries.

In estimates of future profitability, the potential future development of wholesale prices of initial raw materials and fuels as well as of finished products should be assessed. Wherever raw materials and products are design for our exports and imports (which is almost constantly the case), we must take into consideration the anticipated trends in the long-range devleopment of world prices.

Are we perhaps unrealistic in our demands on gathering every bit of information necessary for the specification of efficiency according to those criteria? Information-gathering is always an extremely difficult and not sufficiently accurate process. However, in order to avoid needless errors and illusions in estimates of the advantages of new investments for the development of wage funds of chemical plants in the sense of the principles set by the new system of planned management in the national economy and also in estimates of the benefits of new investments in the solution of crucial problems in the future, i.e., balanced state funds of foreign exchange, it is imperative to strive for such objective assessments of economic efficiency.

Our experience of many years has shown that the mere declaration of the need for chemization, i.e., the achievement of the projected growth in our domestic consumption of chemical products by means of developing our own production, often leads to undue confusion of the economic effect in the development of the production of chemical goods and of the effect stemming from the development in their consumption. Comprehensive analyses of economic advantages resulting from the construction projects under consideration in the Czechoslovak chemical industry with the aid of developed international division of labor should then generate the stimuli necessary for expeditious completion of the scientific, technological and engineering planning of construction projects on a high level, prompt delivery of efficient top-grade technology, and completion of construction projects on schedule. Unwarranted illusions concerning the efficiency of new construction projects in our chemical industry involve imperishable risks and losses for our national economy.

In this respect we must be far more demanding than ever before because:

--the extent of investments in our economy in general over the next 10 years will be absolutely and relatively below the current level and, for that reason, only the most efficient construction projects for an intensive rather than extensive development of the forces of production must be assigned priority in our chemical industry, too. In other words, modernization of the existing production facilities is preferred to the construction of new plants;

--implementation of the principles of the new management system will combine more than ever before the societywide interest in high profitability of production assets with the interest of the enterprises in a continuous growth of workers wages;

--our society has the right to apply stricter criteria in assessing the effects of chemical production on our environments; however, even here we cannot essentially lower our demands for high prospective profitability of fixed assets;

--thorough analyses of the anticipated trend of prices in the demanding world market in particular must expeditiously stimulate the search for the necessary technological innovations and concentration of development, preferably on those sectors of our chemical industry where in the future prices will be such as seem most probable to earn us foreign exchange.

One may object that our wholesale-price system is so imperfect and our understanding of future world prices so limited and subjective that the conclusions and calculations based on such information cannot be reliable for application in the decisionmaking process. Nevertheless, social ownership of the means of production obligates all of us to reduce the risk of incorrect decisions on investment to a minimum by joint research, and to set up and implement the program for the development of our chemical industry that may bring the greatest economic benefits to our society.

Trends distinctly emerging at this time must be respected when setting up the objectives for the development of our chemical industry in future years. I shall list at least the most important among them:

First, it is a gradual increase of the price of imported crude oil, the principal raw material for our chemical industry in a long-range outlook. In 1980, we imported almost all of the crude oil processed in the CSSR from the USSR at prices markedly below the price of crude oil in capitalist markets. However, we realize that in the future the prices of crude oil will further escalate in accordance with the development of the world prices of crude oil. If during the Fifth Five-Year Plan the consumption of most of crude oil in the form of fuel (mainly heating oil) was efficient and economical even in the CSSR, it is undesirable now when the world price of crude oil is approximately 17 times higher than in 1973. All types of fuels and energy, however, will become even more expensive in the future, and the high share of fuels imported from their total primary sources spur us to implement promptly an extensive program for rational consumption of every type of energy in all of our national economy, not excepting our chemical industry.

We presume that the consumption of heating oil will drop even in the Seventh Five-Year Plan and the production of fuels will almost stagnate. We anticipate a further growth of the share of chemically processed crude oil in the CSSR will be contingent on higher imports of gasoline and kerosine for pyrolysis starting in 1987, according to a preliminary agreement with the GDR on the construction of cracking facilities, and on gradual replacement of most of the heavy heating oils consumed with other types of fuel (whenever feasible, also by additional imports of natural gas) over the next 10 years.

We anticipate that as crude oil becomes an increasingly more expensive raw material it will also spur, before the end of the Seventh Five-Year Plan, price increases of related petrochemical materials (plastics, synthetic rubber), which may cut their consumption even further.

The two relatively large petrochemical complexes completed in the CSSR during the fifth and sixth five-year plans are typical for their total capacity, amounting to more than 700,000 tons of ethylene annually. Economic efficiency of our petrochemical industry under new conditions has frequently been questioned. The equipment for both complexes was procurred mainly in the capitalist countries (about Kcs 10 billion, all charges paid) and it should be noted here that the outlays in foreign exchange were recouped even before 1980 from earnings in foreign exchange for the products of these two facilities.

Production of plastics and other petrochemical products in these facilities in the future will provide not only an important material base for our national economy but also essential compensation for sulphur, gasoline, polyurethanes and other vital raw materials imported from the socialist countries.

Another prospective trend involves the focus on chemical production with lower consumption of energy. The problems anticipated in the procurement of necessary supplies of fuels and energy had been recognized in our country as early as during the Fifth Five-Year Plan, when the construction of nuclear power plants, etc., was launched and when we began negotiating with the USSR about an elementary division of labor in the development of chemical industry that would enable us to import from the USSR increasingly more chemical products in which one ruble in import prices represents the highest amount of comprehensive outlays for fuels and energy (such as, for example, methanol, urea, certain types of rubber, etc.) to be compensated by export of less energy-consuming chemical products (for instance, diagnostic reagents, organic pigments, chemicals for the rubber industry, special types of varnish substances, etc.).

This concept which has been approved by an intergovernmental contract with the USSR affects to a considerable extent the focus of our investments for the development of chemical industry during the Seventh Five-Year Plan. It is true that already the Sixth Five-Year Plan included numerous investments in the development of the so-called small-scale qualified chemistry, however, they were postponed because of insufficient preparations and because of additional investments required for the construction of cellulose mills in Ruzomberok and Paskov. When planning the Seventh Five-Year Plan, however, this developmental program regained its due priority as a part of the state target program under the title "Selected Types of Chemical Production."

The third prospective trend focuses on the development of small-scale qualified chemistry. It should be mentioned here that we consider it fallacious to develop any chemical production only because some experts in our country put all their efforts into keeping limited capacities in operation. On the contrary, the concepts for the development of the Czechoslovak chemical industry within the framework of the international division of labor and specialization must give priority to large-scale production of new and specialized chemical materials whose consumption is expected to escalate rapidly not only in our country but also abroad, and where we are more capable than other manufacturers of expeditiously introducing highly productive, economically efficient, though in terms of engineering very demanding, methods of production. It makes no more sense for the future only to expand thus far unprofitable pilot plants without changing their technology, or only to revitalize much too expensive operations that cannot compete with world prices and that are producing goods currently manufactured all over the world.

There are several reasons for the main emphasis on the development of production of the so-called small-scale qualified chemistry at present:

--After the main objective in large-scale chemical production (petrochemical complexes, cellulose mills) is achieved, such products as pharmaceutics, dyes, special plastic and varnish materials, rubber and pure chemicals, pesticides, biofactors, etc., will predominate in the structure and generally negative import-export balance of chemical products in our country.

--The USSR is interested precisely in imports of those types of chemical products in compensation for its delivery of energy-intensive products and crude oil.

--An ample selection of those products offers good opportunities for the utilization of our specialized technological research base in the development of their economically efficient large-scale production designated not only for our domestic consumption but also for export to the socialist and other economically developed countries.

--Improved quality of use values and in general, the economic and technological development of many other industrial branches in our country (as, for instance, production of consumer goods, food products, electronics, agriculture, rubber plants, etc.) depend now and will depend in the future on prompt specific subdeliveries of the chemical industry.

At the same time, we harbor no illusions that we are already prepared for the necessary development in research, planning, acquisition of the required machinery, etc., or that this program will not be highly investment-intensive. On the contrary, research has shown that we have been complacent for much too long about the maintenance of such inefficient low-tonnage pilot plants whose production costs are as much as three times as high as the world price, where production technology is obsolete, and where occasionally up to 28 tons of raw materials are used to produce 1 ton of goods, while the rest is discharged into waste waters, often enough without purification.

Naturally, we do not intend to plan on further replacements for such unqualified small pilot plants.

It is an indisputable fact that our socialist society has achieved many remarkable accomplishments in the development of our chemical industry. In the volume of production and consumption of basic chemical products, we are now reaching indicators most of which correspond with the level of comparable economically developed countries in the world.

We realize that chemization of our national economy must necessarily become a process of increasingly more intensive practical application of the achievements of chemistry and act as one of the most vital factors in the development of the forces of production in the foreseeable future.

Our national economy and all Czechoslovak citizens unconditionally need now and will need in the future increasingly more chemical products of superior quality produced with greater efficiency. Our chemistry must contribute more than ever before to consolidate the economic balance in our foreign relations and also to

improve our environment. The conditions for a further intensive development of our chemical industry in the future will certainly be even more difficult and more demanding than thus far, and what used to be advantageous before is no longer adequate in our new economic situation. The problem is to recognize promptly the factors and achievements of chemical science and technology and the technical organizational measures that may bring progress in the future, more demanding era in the development of our socialist economy.

9004
CSO: 2400

## INCOME, CONSUMPTION OF POPULATION EXAMINED

Budapest TARSADALMI SZEMLE in Hungarian No 3, Mar 81 pp 33-42

[Article by Dr Janos Lokkos, main department chief, Central Statistical Office: "Development of the Population's Income and Consumption"]

[Text] I

In the first years of the past decade we witnessed an intensification of the world economy's processes that disrupted the economic equilibrium of many countries, including also Hungary. The conditions and possibilities for a further rise of the living standard changed, significantly in some respects. These changes are related to the new features of economic growth, to the more moderate rise of domestic consumption and to changes in employment.

Due to the significant worsening of the terms of trade in 1974-1975, the Hungarian economy lost in two years incremental national income worth several tens of billions of forints. At the same time, domestic expenditure --in other words, the population's consumption and accumulation jointly-- rose in these years at a faster rate than the growth rate of the produced national income. Accordingly, the Fifth Five-Year Plan set the restoration of economic equilibrium as the most important objective for 1976-1980.

In this period a conflict developed between the domestic resources available to the economy on the one hand, and the rise of the population's consumption that was not supported by an improvement in the efficiency of production. However, from 1976 on--primarily in response to wage and income regulation-- the outflow of the population's purchasing power, respectively the rise in consumption, developed in harmony with the resources available to the economy. Therefore this was not the principal factor in the further significant deterioration of equilibrium.

In the interest of restoring equilibrium, the Fifth Five-Year Plan targeted a difference of one to two percentage points a year between the growth rates of produced national income and of its domestic expenditure, in favor of the former. This had a significant and many-sided effect upon the processes of the population's income distribution. It contributed, among other

things, to a sharp separation of the nominal and the real processes. For the processes of the outflow of nominal income are linked to production, to the growth of produced national income, while the real processes of income expenditure (consumption) are linked to the domestic expenditure of national income. The growth of national income's production and expenditure at different rates occurred amidst sharp fluctuations. In agreement with our economic-policy objectives, domestic expenditure of national income rose at a slower rate in 1976-1977 than produced national income, but in 1978 the growth rate was significantly faster.

One of the fundamental and decisive causes of the stresses that became severe in 1978 was the large-scale rise of accumulation. As a result, the economy's equilibrium worsened to such and extent that, in the interest of the economy's stability, changes had to be made in economic policy and development policy, with special attention to maintaining the attained standard of living. The essence of these changes was that, parallel with slowing the economy's growth rate, the gap between the growth rate of produced national income and the growth rate of its domestic expenditure had to be widened. The annual growth rate of national income had to be reduced to around 3 percent, which in practice ruled out the growth of domestic expenditure. Under these circumstances it was possible to maintain the level of per capita real income only by sharply reducing the accumulation rate.

With the measures introduced in 1979 and with the fundamental changes in the system of regulation as of 1 January 1980, by reinforcing the normative elements of regulation, it was possible to keep within the annual plan's limits the enterprises' developmental resources as well as the outflow of the population's income. At the start of the Sixth Five-Year Plan in 1981, therefore, fundamental changes in the system of regulation did not appear necessary.

Under the Sixth Five-Year Plan, in addition to the primary requirement of restoring economic equilibrium by reducing the accumulation rate, we may set as our objective the maintenance of the living standard attained in 1980.

In sum we may draw the conclusion that the possibilities of the living standard's balanced development under the Sixth Five-Year Plan are entirely different than in the early 1970s; the conditions of development have undergone fundamental change.

On this occasion we do not intend to offer a detailed analysis of the living standard's principal indicators or of their fulfillment under the individual five-year plans. In the following we will discuss the main characteristics of the living standard's change under the Fifth Five-Year Plan and particularly under the Sixth Five-Year Plan. Within this we will investigate, besides consumption, primarily the development of real income. For real income is a more comprehensive and complete indicator than real wages. The indicator of real income applies to the total population, whereas real

Table 1. Development of the Living Standard's Principal Indicators in the Five-Year Periods. (Average Annual Growth Rates, in Percent)

| | (1) A lakosság összes fogyasztása | | (2) Az egy főre jutó összes reáljövedelem | |
|---|---|---|---|---|
| | (3)Terv | (4) Tény | Terv | Tény |
| 1961—1965 | 4,1 | 3,3 | 3,- | 3,3 |
| 1966—1970 | 3,5 | 5,7 | 2,8 | 6,2 |
| 1971—1975 | 5,4 | 4,7 | 4,9 | 4,5 |
| 1976—1980 | 4,2 | 2,8 | 3,7 | 1,8 |
| 1981—1985 | 1,5 | | 1,3 | |

| | (5) Egy munkás—alkalmazott keresőre jutó reálbér | | (6) A fogyasztói árszint változása | |
|---|---|---|---|---|
| | Terv | Tény | Terv | Tény |
| 1961—1965 | 2,5 | 1,8 | 0,5 | 0,4 |
| 1966—1970 | 2,0 | 3,5 | 0,3 | 0,8 |
| 1971—1975 | 3,4 | 3,3 | 0,5 | 2,8 |
| 1976—1980 | 3,0 | 0,6 | 3,5 | 6,3 |
| 1981—1985 | 0,0 | | 4,5—5,0 | |

Key:

1. Population's total consumption
2. Per capita total real income
3. Plan
4. Report
5. Real wages per worker or employee
6. Change of consumer price level

wages are computed per wage earner. The indicator of real income includes, in addition to wages, also social benefits and the population's other incomes; consequently it is that much broader than the indicator of real wages and reflects that much better the development of the population's incomes.

The average annual growth rate of national income was 4.1 percent between 1961 and 1965, 6.8 percent between 1966 and 1970, and 6.3 percent between 1971 and 1975. Thus we essentially produced what we consumed, except in 1974 and 1975. The Fifth Five-Year Plan (1976-1980) anticipated that national income would increase by 30 to 32 percent (at an annual growth rate of 5.4 to 5.7 percent), parallel with a sharp improvement in the efficiency of production. Actual growth was 17 percent (at an annual rate of 3.2 percent), at a higher stock of fixed assets and with the expenditure of less labor.

The Sixth Five-Year Plan anticipates that national income will increase by 14 to 17 percent (at an annual growth rate of approximately 3 percent). In the interest of restoring economic equilibrium, consumption and accumulation jointly may grow at a substantially lower rate than national income, on average by 0.9 percent a year. In the first years of the plan period, however,

not even this slight growth is feasible, and therefore even the slight increase in consumption can be accomplished only if accumulation is reduced. Over the entire period the ratio of consumption to accumulation will be 82:18 percent, in contrast with a ratio of 76:24 percent under the Fifth Five-Year Plan. This large-scale planned shift also proves that economic policy regards the maintenance of the living standard as one of its principal tasks.

It would be a mistake, of course, to let ourselves become mesmerized by the growth rate, nor should we underestimate its importance. And the fact is by no means negligible that a percentage point of national income's growth --at comparable prices--amounted to approximately 1.8 billion forints in 1960, and to about 5.0 billion forints in 1980. A percentage point of rise in material consumption amounted to 1.5 billion forints in 1960, and to 3.6 billion in 1980.

The law enacting the Sixth Five-Year Plan specifies that the rate of economic growth may exceed the target only if the increase is accompanied by a more favorable development of efficiency than has been planned, and if it contributes toward restoring economic equilibrium.

As can be perceived from the presented data, the consumer price level rose fairly significantly during individual periods, particularly under the fourth and fifth five-year plans. However, the annual fluctuations in the price level's rise also were significant; for example, 3.3 percent over the preceding year in 1973, 1.8 percent in 1974, and 3.8 percent in 1975. The small rise of the consumer price level in 1974 indicates that the state budget absorbed the price increase fcatored in from the world market, and therefore the necessary harmony was lacking between the development of the population's income and price movements. The Sixth Five-Year Plan anticipates that consumer prices will rise on average by 4.5 to 5.0 percent a year, and it assumes that the annual rates of rise will be more even. We will discuss this in greater detail later on.

II

The population's living standard showed a modest rise between 1976 and 1980. The factors that determine the living standard and the living conditions changed in a differentiated manner. Under the well-known circumstances, the immediate material factors (consumption, income) rose at a significantly lower rate than had been planned. But investment in the population's infrastructure developed essentially according to plan.

In their principal characteristics the plan's objectives in conjunction with the policy on the living standard were in accord with the efforts to restore economic equilibrium and improve efficiency; but in the given economic situation it became necessary in 1979 to slow down the growth rates of certain factors of the standard of living, particularly of the material factors. In the first three years of the plan period the living standard's rise was close to the planned rise, but this was followed by a stagnation of real income during the last two years. So far as the living standard's material

factors are concerned, we can thus distinguish two significantly different stages within the plan period. This division into stages is less characteristic of the development of the population's infrastructure. The lag of the population's consumption and income in comparison with the plan is related to, and in proportion with, the slower-than-planned growth of national income.

In comparison with the planned rise of 18 to 20 percent, per capita real income rose by 8 percent in five years, or approximately at an annual rate of 1.6 percent. In other words, we failed to fulfill this principal living-standard target of the plan. The volume of cash social benefits increased by about 35 percent, at close to the planned rate; in agreement with the development of the population's infrastructure, social benefits in kind increased at the planned rate, by about 25 percent.

The rise of incomes and consumption was uneven during the plan period, and minimal in 1976. The rise of real income occurred essentially in 1977 and 1978, while in 1979 and 1980 average real income essentially stagnated. The relatively wide-scale wage measures (for workers in public health and education, for workers assigned to rotating shifts, etc.) and the implemented social-policy measures played a significant role in the rise of income in the first years of the plan period. Development of social benefits was relatively even throughout the plan period.

In accordance with the earlier trends, the proportion of earnings within the population's income is declining, and the proportion of benefits is rising. This trend is evident from the following table:

Table 2. Breakdown of the Population's Total Income (Percent)

| | | 1960 | 1965 | 1970 | 1975 | 1980 | 1985 |
|---|---|---|---|---|---|---|---|
| (1) | Munkából származó | 81 | 77 | 76 | 72 | 67 | 63 |
| (2) | Pénzbeni társadalmi juttatás | 7 | 9 | 12 | 15 | 19 | 21 |
| (3) | Természetbeni társadalmi juttatás | 11 | 12 | 11 | 12 | 13 | 14 |
| (4) | Egyéb jövedelem, tartalék | 1 | 2 | 1 | 1 | 1 | 2 |
| (5) | Jövedelem összesen | 100 | 100 | 100 | 100 | 100 | 100 |

Comment: In 1970, due to structural changes, the proportions of earned income and of cash social benefits increased by about one percentage point each, while the proportions of social benefits in kind and of other income dropped by about one percentage point.

Key:

1. Earned income
2. Cash social benefits
3. Social benefits in kind
4. Other income, reserves
5. Total income

In the development of earnings the trend toward equalization intensified, particularly in 1976-1978. Central wage measures played a significant role in the slight increase of real wages during the first half of the plan period.

The real value of family allowances--including the July 1980 increase of allowances for families with three or more children--rose during the plan period. The amount of child-care benefits also rose, but the efforts to maintain the real value of such benefits failed. In comparison with childless families, the situation of families with children essentially did not change or worsened slightly. The differences in family incomes due to demographic differences did not narrow.

The amounts paid out in pensions doubled during the plan period: from 27 billion forints in 1975 to nearly 56 billion in 1980. The number of retired persons receiving pensions increased during this period from 1.775 million to 2.045 million, or by 15 percent. In accordance with the plan's objectives, we were able to preserve the purchasing power of small pensions even in spite of the faster rise of the consumer price level. Under the influence of the central measures introduced in 1979, there was a slight improvement in the financial situation of retired persons receiving small pensions awarded some time ago. By 1980, the proportion of average pensions in relation to average incomes reached 52 percent, thanks primarily to changes in the structure of retirees. This proportion was about 33 percent in 1960, and 41 percent in 1975.

The economically warranted changes of the consumer prices and price ratios resulted in a faster-than-planned rise of the consumer price level. In addition, the raising of the consumer price level had to be employed also as an instrument for curbing the rise of real income.

In five years the consumer price level rose about 36 percent, which was nearly twice the planned rise (19 percent). The difference resulted almost entirely from central price measures. With the consumer-price increases introduced in July 1979 in conjunction with the reform of producer prices, the overall subsidization of consumer prices ceased and the disproportions of the price ratios narrowed within the individual commodity groups.

In comparison with the average price rise, the departure of the consumer price index for the principal social strata and population groups (for example, blue-collar workers, white-collar workers, retired persons) was only minimal during the plan period as a whole.

The growth of the population's consumption slowed down less than the growth of its income: consumption increased by about 14 percent as compared with the 21-23 percent planned. Which means that the population --despite the slower growth or stagnation of its income--strived to maintain the possibility of increasing its consumption, even at the expense of savings.

In consumer goods and services, supply and demand remained essentially balanced in the first half of the plan period; in spite of a modest improvement in the assortment, there was no meaningful and lasting reduction of the circle of shortage items in this period. Changes in the production structure, the absence of sufficient flexibility, and curtailment of the possibilities of importation created supply problems particularly in the second half of the plan period. To counter this, activity in conjunction with organizing commodity supply intensified in 1979-1980 and generally proved effective. The improvement of purchasing conditions--except in Budapest--was faster than planned.

The increase in food consumption was minimal during the plan period. In comparison with the plan, the population consumed significantly less meat and meat products, but more milk and dairy products, and gustatory products. The consumption of clothing essentially stagnated. In durable consumer goods, the stocks of refrigerators and television sets reached the planned level, while the stock of washing machines significantly exceeded it. The number of cars per 1000 population is 97, as compared with 84 planned. Within consumption, the proportions of the population's expenditure on motor fuel and household energy increased significantly, while the proportion of expenditure on clothing declined.

III

Under the Sixth Five-Year Plan the moderate growth of national income and, within it, a slight rise of domestic expenditure permit a rise of 7 to 9 percent in the population's consumption, and 6 to 7 percent in per capita real income. According to the provisions of the law eancting the plan, it is desirable to increase wages commensurately with the efficiency of labor, in such a way as to maintain on average the attained level of real wages. The amount of investment for the infrastructure's development will be essentially the same as during the preceding five years. Maintenance of the attained level and improvement of living conditions are particularly important political and social objectives. Parallel with the maintenance and consolidation of the attained living standard, closer attention must be devoted to developing the living standard's qualitative elements.

Considering our fundamental social-policy objectives, it can be established that the significance will increase of choosing correctly the tasks that determine the character of our living-standard policy. When choosing the points of main effort in the past, the policy on the standard of living usually started out from the fact that all partial areas were developing, some at faster rates than others. In the coming period of slow growth, however, every essential preference within the policy on the standard of living would result in significant rearrangement, and occasionally in retrenchment or reduction.

Starting out from this consideration, the plan does not take into account the proposals that urge more aid for large families, at the expense of reducing real wages; or within infrastructural investments, the proposals

that urge even more preference for housing construction, at the expense of public health and education. Such regrouping--in our opinion--would only intensify the existing contradictions; the favorable effect of the preferences on individual social groups would be neutralized by the worsening situation of the population groups not affected by the measures. And a decline of the average level of real wages would hamper realization of our interest in improving efficiency, and in the final outcome in restoring economic equilibrium.

The Sixth Five-Year Plan's living-standard targets are in agreement with the objectives of our living-standard policy that were formulated in the party's program declaration; because of slower progress, however, realization of the quantitative objectives set earlier will require more time.

An important consideration in forming the material processes is to avoid conspicuously uneven development, in the population's consumption as well as in infrastructural investments. This would have undesirable political and social side effects.

In addition to the material factors, in the coming period greater emphasis will have to be placed on nonmaterial factors, or on the material factors that require only modest outlays, such as the better utilization of the opportunities that favorably influence the population's sense of well-being, advantageous changes in working conditions and work schedules, the securing of the conditions for a changeover to a five-day workweek, improvement of the level of supply, etc.

1. Earned Incomes, Wages

According to the plan's computations, the level of real wages will be maintained during the five-year period, at an annual rise of 4.5 to 5 percent in nominal earnings and in the consumer price level. Wage increases will depend mostly on results; they will be realized through enterprise wage regulation, and through automatic wage increases in the case of workers employed by budgetary organizations. Wage preferences may be provided within narrow limits and on a modest scale, if the appropriate requirements are met. Central wage measures affecting wide strata will not be feasible in 1981-1985; depending on the availability of material resources, there may be central wage measures of limited scope. The average earnings of workers in agricultural cooperatives will rise commensurately with the average earnings of blue- and white-collar workers.

It will be necessary to pursue a practice of regulating earnings in such a way that opportunities for a suitable increase of earnings may be formed at those enterprises and collectives where profit is based on an improvement of efficiency. By forming the wage-policy practice of enterprises and institutions it is necessary to achieve that the enterprises and institutions use a major proportion of the opportunity for wage increase to implement more effectively wages based on performance; earnings must provide more incentive than up to now for work that is useful to society and reflects stricter quality specifications. We must strive primarily for

greater material recognition of creative physical and intellectual work. The real wages will rise, and the financial conditions will improve, of those workers who achieve above-average improvement of their performances.

Because the consumer price level will rise at an average annual rate of 4.5 to 5 percent, the already existing emotional factors of opposition to wage differentiation might intensify. The local political and economic organs must support--through briefings, persuasion, suitable organization and sound measures--the spreading of performance wages commensurate with the quality and quantity of work performed.

2. Social Benefits

The volume of social benefits in cash and in kind will increase by 15 to 16 percent in five years, primarily through the existing (automatically functioning) systems of transfer payments. Within this, cash benefits will increase slightly faster, by 16 to 17 percent. The proportion of benefits within the population's incomes will continue to rise, reaching 35 percent in 1985, as compared with 32 percent in 1980.

Our fundamental objective in increasing benefits is to improve the living conditions of large families, enabling them to bring up their children better. We regard as important that the financial situation of large families should not worsen in comparison with childless families. Therefore the allowances for families with three or more children must be raised commensurately with the consumer price level's rise; in other words, we must maintain the real value of family allowances. Because of our financial possibilities, the allowances for families with two children, and the amount of the child-care benefits must be increased at only a slightly lower rate.

In the course of planning, and also in public debates, it was propoed to preserve the purchasing power of the allowances for families with two children, and of the child-care benefits. The proposal is acceptable as something we should strive for, but it could not be adopted responsibly as the plan's targets. If our financial possibilities permit, both targets may be included in the annual plans later on.

Taking the present automatic increases into account, the total amount of pensions paid will increase by 50 percent during the plan period, at current prices. In 1985 this total will exceed 85 billion forints. The number of retired persons receiving pensions will increase by about 5 to 6 percent, reaching 2.16 million in 1985. The average financial situation of new retirees will be more favorable in the mid-1980s than at present: in 1985 the average pension will approximate 60 percent of average earnings. One of our important objectives is to maintain financial security for the elderly, even in a period when the livings standard's rise is slow. Therefore we must raise primarily the small pensions at a rate such that the purchasing power of pensions in this category will be preserved also between 1981 and 1985.

Up to 2300 forints as the average monthly pension in 1980 (about 60 percent of the pensions are below this level) the purchasing power of the pensions will be preserved; we are targeting a small increase of pensions below the 2000-forint limit; the purchasing power of pensions above 2300 forints (approximately 40 percent of all pensions) can be preserved only partially, just as in the past decade.

Primarily a modest improvement in the living conditions of persons with multiple disadvantages requires an increase of resources earmarked for aid, the more efficient utilization of such aid, reinforcement of its preventive nature, and the expansion of care provided by volunteers and families.

Under the present conditions, the real value of social benefits in kind will increase by 14 to 15 percent in five years, in agreement with the infrastructural investments (education, health care) and at a significantly faster rate than personal incomes.

3. Use of Income

The use of real income that can be planned for the Sixth Five-Year Plan is influenced--besides consumption--basically by the foreseeable development of the population's savings and investments (in housing, weekend cottages, etc.). Numerous factors affect the development of the proportions in the use of income (consumption, investment, savings). These factors include the structure and level of income, the rate of the consumer prices' rise and its fluctuations, the level of supply, opportunities for private housing construction, the policy on savings deposits, etc. To keep the rise in consumption within the planned limits it is necessary to provide wider opportunities for other spending besides consumption, respectively to encourage the use of income for purposes other than consumption. Accordingly, we must promote the stabilization of savings during the plan period, at least at the 1980 level, even if financial possibilities develop slowly and in a differentiated manner. Foreseeably it will be necessary to intensify and encourage also by indirect means the population's propensity to save. The introduction of new types of savings schemes seems expedient from this point of view.

In planning the population's consumption we started out from the important requirement that at the slow rise of consumption the already attained level of supply must generally be maintained, and even improved wherever possible. A key issue of our living-standard policy is that the dynamic equilibrium of supply and demand must be reinforced. Particularly important is the permanently balanced supply of so-called basic necessities, i.e., of foods and essential industrial goods. Emphasis in the development of supply must be placed on raising the level of the entire process. Special care must be devoted to product quality, which is an increasingly important factor in evaluating supply. It is in the interest of both consumers and the national economy to improve product quality and the durability of industrial consumer goods. Efforts must be made to narrow the unwarranted regional differences in supply.

To balance purchasing power and market allocations, we must rely more on enterprises of intermediate and small size, on small-scale production and supplementary activity; in agreement with the actual demand, private artisans and retailers must be allowed to contribute toward the supply of the demand and the improvement of services.

Trade must respond more flexibly than heretofore to changing market conditions; cooperation between industry and trade must be improved; and the path of goods from producer to consumer must be shortened. In the supply of goods and services, improvement of the qualitative elements in a wider sense (reliability, promptness, organization, efficiency, etc.) must be promoted through the formation of self-interest relations, organizational measures, increasing competition and also by other means. More effective consumer protection may likewise be regarded as an important factor.

At the 1.5-percent average annual rise in consumption, transformation of the structure of the population's consumption will continue, but the rate of its modernization will slow down. The structure of consumption will be influenced basically by the changing income level and price ratios. Within purchased consumption--primarily in response to price effects--the proportion of expenditure on sources of energy and motor fuel will foreseeably continue to rise, the proportion of expenditure on clothing will continue to decline, but the proportion on food will also be lower.

The approximately 4-percent rise in food consumption in five years stems mostly from changes in the structure of food consumption and the degree of processing. The consumption of animal-protein and vitamin-rich foods that permit sounder nutritional habits will increase at a faster rate than total food consumption. The plan anticipates that in 1985 the per capital meat consumption will reach 77 to 78 kg; the consumption of milk and dairy products will develop rapidly and will reach 178 to 179 kg; fruit consumption, 90 kg; and vegetable consumption, 80 kg. The consumption of cereals will continue to decline.

Overall consumption of clothing will not increase, due to the slow rise of real income and the relatively fast rise of the consumer price level of clothing. However, a further differentiation of the demand can be expected on the basis of price and quality.

The stock of durable consumer goods owned by the population will continue to rise, but at a somewhat slower rate. The development will be evident primarily in the improving age of the stocks of durable consumer goods. Increases can be expected particularly in the stocks of labor-saving refrigerators and washing machines, to more than 100 appliances per 100 families. The balance of the supply and demand of motor vehicles also will improve. The growth rate of energy consumption by households will slow down significantly. The level of apartment fixtures will improve, and the demand will increase for goods and services that permit civilized utilization of leisure time. On the whole, the demand for such services--in

agreement with the expansion of the health-care and cultural networks, and with the development of the repair and maintenance services provided by industry and the construction industry--will grow at a fast rate, more than double the growth rate of the consumption of goods.

4. Consumer Prices

The plan period's consumer-price policy must aim basically for the formation of such consumer prices of goods and services that will enhance the restoration of economic equilibrium and the realization of the structural objectives in production and consumption. Consumer prices must flexibly adapt to the changing conditions of production and import, and to their costs that partially depend on the international consumer prices of goods and services. The price mechanism's ability to function must be enhanced also by gradually increasing the proportion of goods and services that have been assigned flexible price forms (at present the proportion of such goods and services is about 50 percent).

The consumer prices of essential goods and services will continue to be set centrally. We intend to solve this so as to avoid such a buildup of stresses between costs and consumer prices that eventually could be resolved only through extensive and significant price measures and central offsets.

We anticipate that the consumer price level will rise by 4.5 to 5 percent a year. Through the suitable timing of the central price measures we wish to achieve that the price level's rate of rise will be fairly even. It is estimated that approximately one-third of the consumer price level's mentioned rise will result from central price measures; and about two-thirds, within the circle of flexible price forms, from enterprise price increases in response to market forces. During the plan period the annual national economic plans will determine--after carefully weighing the political, social and economic considerations--the scope, extent and timing of the central price measures.

Despite the price increases to date, budgetary subsidies for certain consumer prices are substantial. The more important subsidized prices include: sources of energy for household use, rents, and transportation fares; and among basic foods, the price subsidies for milk and meat. Within the sphere of the population's consumption, price subsidies today essentially offset the amounts of turnover tax.

IV

If economic equilibrium develops in conformity with the plan, sufficient resources will be available to government organs for maintaining the attained standard of living. The law enacting the plan specifies that if the economy develops more favorably than planned, the available additional resources must be used partially to raise the standard of living, and partially to better substantiate the improvement of living conditions. And if

the national economy develops less favorably than planned, the plan's targets will have to be modified accordingly.

Overall maintenance of the attained standard of living is not an unconditional guaranty that the living standards attained by certain earning strata or by various types of families will be maintained. In the case of enterprises and individuals we must anticipate a differentiation of the increase in earnings and wages, in accordance with performance. It would not be warranted to neutralize this differentiation through special financial instruments and equal distribution of wages, because this would destroy the desired economic incentive effect.

For the basic strata that are the most important from the viewpoint of social policy it is absolutely essential to guarantee maintenance of their attained financial level: for retired persons living on small pensions, for large families, and persons with multiple disadvantages. For smaller groups within these strata (for example, in the case of retired persons receiving the smallest pensions) we must strive for a modest improvement of their living standard.

The present proportions in the living standards of the basic classes and strata are not expected to change significantly in the coming years. Knowing the possibilities of financial assistance to families with children, we may assume that income differences between families with children and childless families will not narrow, and that they may even widen in the case of families with one or two children.

The rise of the average income level of families not gainfully employed (retired families) will foreseeably exceed that of families gainfully employed; in particular, the structure of retirees is shifting in favor of retired persons with higher pensions. (The pensions of recent retirees are higher than average.) Consequently, the gap between the average income of retired persons and that of gainfully employed households can be expected to narrow.

An essential element of the living standard in a wider sense is employment that offers a secure livelihood. The maintenance of full employment will remain one of our important tasks, and we wish to achieve full employment parallel with a forceful improvement of the efficiency of live labor. We must pursue an active and purposeful employment policy and manpower management that incorporate the consistent reduction of the economically unwarranted and underemployed workforce on the one hand, and the creation of new jobs for which there is a need on the other hand.

Parallel with stabilizing the living standard's financial factors, the changeover to a five-day workweek is significant politically, socially as well as economically. It will be remembered that a resolution has been adopted which calls for the general introduction of a five-day workweek as of 1 January 1982, after suitable preparations and at a slight reduction of the present availability of labor.

The Sixth Five-Year Plan has set as its objective the maintenance of the attained standard of living. Amidst the well-known external and domestic conditions, this objective is by no means small. However, the attained standard of living also can be maintained only through more efficient work, through the economical and sound operation of the enterprises, cooperatives and budgetary institutions.

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INCENTIVES FOR CONSERVATION OF ENERGY PUSHED

Budapest MAGYAR MEZOGAZDASAG in Hungarian No 5, 4 Feb 81 p 3

[Article by Miklos Szigethy, deputy department head, MEM [Ministry of Agriculture and Food Industry] Main Agricultural Department: "To Popularize Energy-Saving Methods"]

[Text] In our Sixth Five-Year Plan we intend to give a definitive role to implementing the improvements which serve to consume energy in a reasonable manner. This has dual significance. On the one hand, from the national economic point of view it may contribute to improving our economic equilibrium and, on the other hand, it is also an indispensable condition for the successful economic operation of the enterprises by decreasing their production costs.

To wit, due to the continuous rise of energy costs, the replacement of high-energy-demand technologies was solved practically from 1 year to the next in countries with advanced plant-growing and livestock-raising technologies.

Under our domestic circumstances and opportunities, we expect fundamental changes in this plan period in the areas of storing and using fodder grains--primarily corn--without drying, chemical preservation of sliced beets in the sugar refineries, and of alfalfa-type plants without drying, and of using agricultural byproducts and leftovers for energy-saving purposes.

Many Types of Subsidies

Within the framework of a regulatory system which has taken effect as of 1 January 1981, the government organs are extending favorable conditions for implementing investments needed for this. The benefits are very manifold and complex. In addition to one's own resources, direct and indirect subsidies can be considered by implementing improvements. Credit conditions are favorable, and government loans are also available.

Based on joint regulation No 21/1980 (X. 27.) PM-MEM [Ministry of Finance-Ministry of Agriculture and Food Industry] concerning subsidies to agricultural operations, agricultural operations may take advantage of 30 percent or 35 percent state

subsidies, respectively, to build fodder-storage facilities on cattle- or hog-raising lots, and in the case of hog-raising lots this is also available to build simple feed-blending plants connected with them. From the viewpoint of state subsidy, constructions to store undried produce fall under the same consideration with the hog- and cattle-raising facilities, therefore the Hungarian National Bank has investment loans decreased by 4 percent--that is, at 3 percent interest--for implementing them in this branch.

Inasmuch as recovery is favorable on the basis of the value of foreign currency saved, credit needed for the investments can also be authorized by the bank within the framework of credit constructions to increase the convertible export-goods base, or to promote the saving of imports. The bank's megye headquarters evaluate and judge the credit requests submitted to them on the basis of uniform evaluation viewpoints.

To Preserve Without Drying

We have made it a goal in our branch's plans for 1981-1985 to store and use nearly two-thirds of the corn used by the large agricultural operations--2 to 3 million tons--for feeding livestock, primarily for raising hogs fattening cattle, without drying. The methods of storage and feeding have been developed in recent years; indeed, due to the unfavorable weather in 1980 a number of large operations are storing more corn without drying than they had planned to store. Experience gained here--about half a million tons of corn is involved--proved the earlier theories and the correctness of the development directions. The favorable effect exerted by damp storage of grain on overhead costs is sufficiently proven by the fact that while the classic harvesting technology based on precleaning, drying, and storage required nearly 700 to 800 forints of expenditures per ton, the overhead cost of damp storage per ton does not exceed 100 to 150 forints and, in addition to this, it also means a foreign-currency savings of 360 to 400 forints. By implementing these improvements at the planned rate, our agricultural branch can achieve 100,000 tons of heating-oil savings per year, which at today's prices has a foreign-currency value of roughly 1 billion forints.

Technological solutions have been developed for the necessary facilities. Considering our investment capabilities and the requirements of the technology, which demand unquestionably better disciplined work organization, we expect that the so-called combined storage method, that is, walled silage space and tower silos together will become the most widely accepted. The walled silage spaces [intramural silos] needed for the investment can be obtained from domestic manufacture. We will in the near future create the conditions for domestic manufacture and socialist import of tower silos. But even until then the ministry will also provide coverage for other imports in order to facilitate improvements at the necessary rate. We will also mention here the increase in the storage and use--without drying, by chemical and biological methods--of sliced sugar beets for sugar refineries, and of green fodders. By this it will be possible to save an additional approximately 95,000 tons of heating oil in 1985. The subsidies which can be given for investments needed to achieve this (for intramural silos) are similar to the ones applicable to undried grain storage.

## The Byproduct Also Contains Energy

The government has recently adopted a comprehensive energy management program. Within the framework of implementing this, the government has approved separate, so-called central development resources for energy rationalization. All those energy-saving actions can be supported by these central resources which are aimed at modernizing existing facilities and equipment, or replacing (substituting) the consumption of energy sources as necessary, introducing rational technologies from the energy-management viewpoint, or making use of heretofore unused energy sources.

Enterprises and institutions may take advantage of assistance for investments resulting in energy savings through the National Development Bank by means of competitive proposals, in addition to the already-mentioned bank credits in accordance with the credit-policy guidelines.

Those investments may receive state subsidy which will result in direct energy savings or in releasing energy sources, as well as those which make it possible to make favorable use of previously unused energy sources (for example, geothermal energy, waste energy, or the use of waste materials). The extent of subsidy is 30 percent of the investment cost. The enterprise must cover the remaining expenses from its own resources, or from reduced-cost investment credit. Changing over the existing oil-fired drying and heating equipment to use byproducts for fuel, as well as building new heating facilities based on using byproducts and waste materials for fuel, can be accomplished in this manner. Assistance extended in the form of a state loan, and extending up to 100 percent of the investment cost may be taken advantage of in such cases if recovery of the investment is made possible to an extent of at least 85 percent by direct energy savings. And finally, basic state subsidies can be taken advantage of for developments to create background industry, machinery manufacturing, or special implementing capacities needed for these investments.

The organs reviewing the competitive proposals (National Energy Management Authority, National Development Bank) require detailed technical and financial evaluations, as well as calculations proving that the investment will also save energy over the long range (the so-called H index) to be prepared for the judging, therefore it is advisable for the agricultural operations to assemble their proposals with the help of the professional planning institute. Our main department has requested AGROBER [Agricultural Design and Investment Enterprise] to do these jobs out of turn and with professional care.

In our opinion, it is practical to take advantage of the above favorable opportunities primarily for the construction of larger, 8,000- to 10,000-ton undried grain storage and blending facilities, for replacing the existing oil-fired heating facilities with more energy-frugal technological solutions, and for building new heating facilities based on using byproducts and agricultural waste materials. This, of course, also includes developments serving to create the necessary domestic industrial manufacturing base.

The Goal: Substitute for 300,000 Tons of Oil

The Council of Ministers expects our branch to substitute for energy sources in the equivalent of about 300,000 tons of oil by 1985, in harmony with creating the domestic manufacturing capacity for the large agricultural operations to burn waste straw, corn stalks, and waste wood from agricultural and forestry management operations, in furnaces suitable for this purpose. Prototypes of the equipment operated in 1980 in Agard, Balmazujvaros, and Babolna and the reports were favorable. A new type will be tested in 1981 in Dalmand. Creation of the manufacturing bases has already begun on the basis of measures taken by the government.

Our large agricultural operations are now preparing their Sixth Five-Year Plans on the basis of planning guidelines which have been issued. A basic condition for the plans being realistic is that developments for saving energy should have the appropriate weight in the medium-range plans. Our goals related to increasing efficiency can be achieved only in conjunction with these. There are, of course, a number of new technical solutions under development also (for example, biogas plants, the use of wind and solar energy) which are only being experimented with today, but which may earn the right to exist in the future if economical technological solutions are developed. But in the case of these--because of the significant uncertainty factors--much more detailed and better founded economic analysis is needed even for building experimental equipment. We have included the new kinds of experimental solutions in our technological development plans, and we will support these from central resources.

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## SITUATION OF PRIVATE AGRICULTURAL PRODUCERS ANALYZED

Budapest FIGYELO in Hungarian 11 Mar 81 pp 1, 15

[Article by Peter Bonyhadi: "The Cost of Five Hours Per Day"]

[Text] "They have it easy--they have their household plots!" Those who see only the better side of life in a village apply this comment to people who live in villages. Easy, because there are the hogs, cows, rabbits, vegetables, fruit; these only have to be sold, and "the money pours in." And on top of this, they do not even have to pay tax for sales income up to 150,000 forints per year. Many people were not, and probably still are not sufficiently familiar with the methods and circumstances of producing on household plots, with the economic and personal risks involved in production, and thus they placed equation marks between this form of economic operation and becoming rich.

At this time, within this article we will separate the products of household plots intended for the market, and for the family's self-consumption. The wee bit of vegetables, potatoes, fruit, and a hog or two fattened at the end of the garden, in a word all those things which families living in villages or in village-like environments, consume in their own households, count only as indirect income. There is no question about it: indirect income is income too, since this way the money intended for food under other circumstances can be saved, or spent on other useful things.

### For One's Own Kitchen

According to the study entitled "Comments on the Question of Self-Sufficiency of, and Production of Goods by Households" by the Cooperatives Research Institute, in low-income households of peasants, the extent of self-sufficiency reaches as high as 22 percent of the annual income, while for families with large incomes it is 15 percent. If we calculate these ratios in terms of forints, we see that the per person per year value of self-sufficiency in consumption is about 2,500 forints for the former families, and 6,700 forints for the latter.

It is difficult to put numbers on the amount of money which can be saved on building up the network of stores, buying transportation equipment, and on sales costs through self-sufficiency, but it is not a negligible amount. Omitting consumer price subsidies directly saves some [national] budget expenses, and this is not a negligible viewpoint for some of these items. According to the calculations of the Agricultural Economics Research Institute, this sum is 300 million forints per year for self-consumed milk, 650 million for pork, and 350 million for poultry meat.

However, the household plots and operations around the house produce not only for their own kitchens but also for sale. This, or the income derived from it, is what many people often dwell on. The envy is not rare, either.

However, the families who produce goods for sale are risking their labor and their money, since, for the most part, the fodder, propagating materials, and chemicals have to be purchased. before they can really begin to "count their money" for their work, they must, among other things, accept the risks of the weather's misbehavior, various plant and animal diseases, marketing uncertainties, sometimes also the lack of feed, fertilizers, machinery and equipment, the unreliable quality of raw materials, price fluctuations, shipping difficulties, lack of organization in wholesale purchasers, etc. But first of all they have to work, and work a lot!

Family Production

The whole family keeps busy on the household plots. Within the framework of a general agricultural survey, the KSH [Central Statistical Office] for a year continuously recorded the daily activities of family members over 10 years of age at 1 percent of the small farming operations. It was found that family members spent an average of 5 hours per person per day doing household plot work.

But this 5 hours is only an average. What and how much a family with a household plot operation actually works can be illustrated by the so-called workday photograph.

The following things were found from a workday photograph taken on a summer day. We are speaking about a family of five. The father has retired from a TSZ [producer cooperative], and the whole day for 12 hours he cuts hay [with a scythe] on the canal's banks. The mother feeds two cows, one pig, and 62 head of poultry in the morning. She milks the cow and force-feeds two ducks. This takes 2 hours. The son waters the animals. This takes only 15 minutes. When they arrive home from their jobs in the afternoon, the daughters, gather hay. The two of them together work a total of 4.5 hours. In the evening the father cleans the cow shed and puts clean straw under the animals in 30 minutes. The mother again feeds the animals and milks the cow. This takes 1.5 hours. At day's end the son takes 30 minutes to water the animals.

Adding this all up, it is found that the family of five members worked a total of 21 hours. In all certainty the love of animals also played a role in this, but we would be oversimplifying the question if we restricted the motivations to only this, or only to the acquisition of income.

The Market Research Department of Karl Marx University of Economic Sciences [MKKE] asked several hundred families what they do or do not do, and why. (The families interviewed worked in the household plot production of vegetables and fruit, thus the answers are valid only in this area, but the viewpoints may also be valid in general terms).

In the Bank, or Into Production?

When the accumulated data were processed, it was learned that in recent years 40 percent of the family plot operations interviewed began to work with new products, and 53 percent of them discontinued earlier crops. The main decrease was in the production of radishes and carrots. In the fruit group, fewer apricots and winter apples were grown. On the other hand, the sour cherry, berries, and pears have made gains.

When products were eliminated, the reason given is 40 percent of the cases was low wholesale purchase prices, 23 percent claimed sales difficulties, and 16 percent stated lack of manpower in the family. On the other hand, in developing the production profiles, the product structures, the reasons given in 27 percent of the cases were the certainty of income, with natural conditions given in 20 percent of the cases, ease of sale in 18, relatively little work required in 17, family's needs in 13, and miscellaneous other reasons in 5 percent.

Thus when we analyzed the reasons, we again arrived at the question of income, the thing which keeps public opinion the busiest. How much do they really make? The spectrum of household plot operations is so wide that it is difficult and quite complicated to calculate an average. Net profit, that is, the net income in agriculture is calculated by subtracting the production expenditures and the various production-related taxes from the sales income.

In the household plot operation, the producers advance the expenditures from their own money, and it is recovered only months or years later. Thus, for example, the result of a 2,700-forint expense, advanced to fatten one hog, is a hog which can be sold for 3,000 forints. Thus the income is 300 forints. The family takes the 2,700 forints away from its other incomes for the purpose of production, "loaning" it to production out of its cash, which, if it were not spent for production but placed in a savings account instead, would earn 5 to 6 percent interest per year. Thus the income must be further decreased by another 67.5 to 81 forints, because they work for almost a half a year fattening each hog. Of course, this is only one hog. Those who produce under contract for the market, or more precisely for the meat industry, may also sell several dozen porkers a year, so that the ratio of work invested to income is more favorable.

To the Limit of the Tax-Free Bracket

To remain at our example, the number of hogs being fattened in a yard will, in the final analysis, depend on the tax-free sales price ceiling. The only problem is that the production costs are getting closer and closer to the 150,000-forint wholesale buy-up limit established years ago, or in simple terms: the profit is getting smaller and smaller.

For the hog mentioned above as an example, this means that while in 1977 as many as 45 to 50 animals could be fattened in a yard within the 150,000 forint limit, in 1981 only 35 to 38 hogs fit in this "frame." But why are the farmers unwilling to pay the tax?

Tax authorities are not liked anywhere in the world, but this country's household plot operators and small producers are especially wary of them. This is so because in many places the tax office personnel are prejudiced against small-scale production. This causes the producers to remain within the "safe," tax-free area. They say: "There is less money, but at least they leave us in peace." One TSZ, for example, complained in its letter to MEM [Ministry of Agriculture and Food Industry] that agents of the tax authority in question declared that the free services and benefits provided by the TSZ to the household plots were "hidden income," and taxed it. Let us not decide the argument here, but it is noteworthy that, while from one side, encouragements are heard for helping household plot

production and for integrating it in the large operations, at times on the other side, the tax authorities proceed more severely than necessary. Of course, it would be an oversimplification of the situation to blame all of the problems of small-scale production on the tax regulations.

The situation is still confused today as far as the application of product sales contracts, enterpreneurial contracts, transportation contracts, the regulations for share farming which are always considered to be labor contracts, wage labor, land lease, usufructuary lease, are concerned. The conditions for organizing various small-producer associations or specialty groups by the large enterprises are unregulated. Interpretation and application of the legal, financial, labor law, social security, retirement pay, and tax regulations are not completely clear and unambiguous when the various contracts are entered into. Because of this, many opportunities for cooperation between large and small operations are missed.

Subcontracting Problems.

For example, in the interest of promoting the integration of small operations raising livestock for the large operations, the regulation should be voided which prohibits the large operations from allowing others to use their grassy areas. It should be made possible that the small producer's subsidy, or a part of this, to which the small producer is entitled for livestock--for example, a cow--placed by the [large] farm with him, but which is owned by the [large] farm, should be paid to the farm which placed the cow. To wit, at this time the large agricultural operation receives 18,000 forints of state subsidy to create space for one cow. A small farmer, if he increases the number of his cows, receives 2,500 forints of state subsidy per year for the first cow, and 6,000 forints for the second one. He can receive this subsidy for 4 years in advance if he enters into a long-range contract. Thus if he puts two cows in the corral, he receives a state subsidy of 34,000 forints.

But this subsidy is not given when a large agricultural operation leases a cow it owns to the small producer. That is, in this case in true "catch-22" style, the number of cow spaces is not increased by the large agricultural operation, and the small operation does not increase the number of its own livestock because it has the large agricultural operation's cow. It is an entirely different matter that the number of cows still increases in the final analysis.

The fact that this is not an unjustified request for subsidy can be proven indirectly by [the fact] that, for example, the number of cows kept by small producers has also decreased because purchasing a cow is quite a costly undertaking. A cow costs 40,000 to 50,000 forints, thus the small producers have to spend 50,000 to 60,000 forints for the two cows in addition to the 34,000 forint state subsidy. On top of this, the supply and transportation of bulk fodder, and hauling away the milk are uncertain. But if the producing animal is owned by the large operation, the large operation is forced to provide a better supply of fodder to the small producer in the interest of successful and efficient economic operation.

Internal accounting regulations, income regulation and taxation conditions should be developed which would be new in the sense that the animal placed out will generally remain the property of the [large] farm, but its feeding expenses are borne by the small producer, production is done with the small producer's equipment, the family members also participate in the work, etc.

Spellbound by the Way the Street Looks

Whether he be a self-supplier or a producer of goods, a village-like surrounding is a basic condition for the small producer's activity. But, like so many other things, the village-like surrounding which seemed to be a natural thing in the past, is also slowly becoming something special.

The traditional village houses were built, like beads on a string, on both sides of the street. The houses, facing the street for the most part, were followed by the livestock sheds, cages, barns, and vegetable gardens. The rebuilding began as early as between the two world wars, and later accelerated with the increase in the number of people who live in villages but whose livelihood is not agriculture. Instead of the houses with long, saddle-like roofs, cube-shaped buildings with tent-shaped roofs appeared. This new construction style can be criticized not only from an esthetic viewpoint, but also because it greatly hinders the agricultural work around the house.

To wit, according to construction regulations, animal-raising buildings must be built at least 16 meters distant from a residence. Taking also into consideration the mandatory 5-meter front garden, 10-meter house size, and 3-meter distance from the neighboring lot, this means that livestock sheds could be built only on a 1-meter wide strip of the lots which average 35 meters in length. And even at best only rabbits could be housed in such a small area.

But why the 35-meter lot depth? The regional development considerations want to lay down the foundations for urbanizing the villages and, therefore, they wish to create the possibilities for later economically installing public utilities and creating the roadway network, by increasing the population density. But it is a different question that an idea which, at best, will become reality only decades from now, is already causing functional problems.

Architects have tried to coordinate the needs of raising animals and developing the settlements. They have designed farm buildings which in addition to the summer kitchen, barn, etc., also included a hygienic, closed livestock shed. But, on the one hand, these buildings were very costly, their specific investment costs almost reaching those of the investment costs of large operations.

And, on the other hand, 2 to 3 cubic meters of water are needed each day for the fully equipped livestock shed. And in those areas where the capacity of midget water works is barely enough to supply drinking water, this condition made broad-based implementation of the plan illusory. Not to mention the fact that this much effluent water cannot be purified, a system of ducts would be needed to remove it, which even according to the settlement-development theories can be implemented only in the future.

It only makes things more difficult [illegible]e the village structure would otherwise make it possible to have a [farm, op]eration around the house, the local council apparatus--led by some kind of urbanization ideas--hinders the raising of livestock, for example. There are villages where the village council allows only one pig to be kept in a yard, for reasons of tourism. A separate permit is also needed to keep a cow, and not only in the vicinity of a main street but also in ranches several kilometers from the village center. In other places, it is specified that because of the beautification of the village with trees and shrubs, everyone must accompany their own cows to the pasture, and lead them home in the evening.

This may not be the general practice, but it is in quite a contradiction with the official statement according to which the regional management organs--among other things--"regularly review and modernize the restrictive regulations concerning livestock raising in populated areas."

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FIRST MINE OF EOCENE PROGRAM STARTS COAL PRODUCTION

Budapest MAGYAR HIRLAP in Hungarian 2 Apr 81 pp 1, 4

[Article: "The Markushegy (Markus Mountain) Mining Operation Produces Coal Half a Year Before the Target Date"]

[Text] The Markushegy operation of Oroszlany Coal Mines, the first mine of the eocene program, is producing coal half a year before the target date. The conveyor belt was started up on Wednesday, and within a few minutes it brought to the surface some of the excellent-quality lignite from the first longwall stope. Ferenc Havasi, secretary of the Central Committee, Minister of Industry Lajos Mehes, members of the MSZMP Politburo, and Laszlo Kovacs, secretary general of Trade Union of Mining Industry Workers, were also among the solemn moment's participants.

Participants of the opening ceremony inspected the mine's numerous surface facilities. Markushegy started production within 45 months, a uniquely short time in the history of domestic coal mining. The designers and builders solved a big problem, since they were implementing an accelerated program, and they did not even have any experience in building such a modern and large mine. Yet they achieved outstanding successes in the various stages of the investment: a number of drift driver brigades wrote their names with their record achievements into the international history of mine construction.

Practically everything that characterizes modern coal mining in Europe can be found in this "underground factory." Machinery and equipment purchased from a number of countries and manufactured by the domestic industry, all forming a close-knit technological chain, are producing in such unison here for the first time. Production and transportation are directed automatically from a dispatcher room on the surface. The miners are spared all heavy physical work. The machinery and equipment is transported directly to the place of work by a suspended rail system, and the coal is brought up from there to the surface and transferred to the classifiers by conveyor belts. The railroad within the mine--for which a passenger and freight station was built at a depth of 320 meters--saves the workers from having to walk underground.

Markushegy is already producing 1,200 tons of coal per day now, and its plan for this year is 300,000 tons. Construction will continue while production is under way. Implementation of the investment is planned for completion in 1984--also a half a year sooner than had been planned. So far in the work, the costs of building the mine totals 3 billion forints, and it is almost certain that total cost will

not exceed the projected 4.7 billion forints. The mine will be a profit-producing operation as early as with next year's 800,000 tons of production, and in 10 years it will have paid back the state loan spent to build it. The operation's performance will peak in 1988, at which time it will produce 8,000 tons of coal per day, which is much more than the originally planned 6,000 tons per day. Its output per worker per shift amounts to 8.3 tons, which is four times as high as the present nationwide average. Even in the next century Markushegy will continue to produce for several decades. Its 50-million-ton coal inventory--if used only for generating electrical energy--would be enough to generate 70 billion kilowatt hours. But for the time being the population will be the main recipient of the high heating value of the coal from the new mine.

At the ceremonial general assembly organized for the occasion of the dedication, Albert Varga, chairman of the Oroszlany Coal Mines Enterprise, recalled the most important events of the investment. He spoke of those who stood their ground in excellent fashion and thanked the workers of the two major and many smaller enterprises for their self-sacrificing work.

Ferenc Havasi congratulated the designers and builders of the mine in the name of the Central Committee. He thanked the Soviet experts for the help which they had extended by sharing the experience they had gained in building the Soviet mines, and by supplying Soviet machinery which has excellent performance. He said that the Markushegy mine opens a new era in the history of domestic coalmining, and because of this it places a great responsibility on its workers. The national economy expects its collective to show an example in production--as they did during implementation of the investment.

Laszlo Kapolyi, state secretary for the Ministry of Industry, handed out the awards of the Presidential Council and of the minister of industry to those workers who did outstanding jobs in organizing and implementing the investment project. Laszlo Vass, vice chairman of the Oroszlany Coal Mines Enterprise, and Sandor Batki, the enterprise's chief engineer in charge of investments received the golden grade of the Order of Labor. A total of about 60 people received recognition awards from the ministry, from KISZ [Communist Youth Federation], and from the enterprise.

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## LIVESTOCK SITUATION CONSIDERED UNFAVORABLE

### Results of Census

Warsaw TRYBUNA LUDU in Polish 21 Jan 81 p 4

[Article by Ewa Fiala: "Breeding: State and Perspectives"]

[Text] As recently as several months ago in all of the press, as well as in the columns of "TL" [TRYBUNA LUDU], the necessity of and possibilities for restraining the acutely apparent decrease in the number of swine, cattle and sheep were written about widely and frequently. Unfortunately, life did not bear out the prognoses of that time.

At the beginning of January, accountants prepared and on the 12th of this month, GUS [Central Office of Statistics] published the initial results of an animal census in the private economy that reveal a decrease of 14.3 percent in the number of swine, (including 17.3 percent for sows) and 7.5 percent for cattle (including 4 percent for cows). Furthermore, the Agriculture Ministry has data from reports of the CZ PGR [Central Administration of State Farms and observations from the remaining socialized farms. On this basis, it is possible to assume approximately that the number of livestock in all agriculture currently is: 18.65 million swine (compared with 20.983 million last January); 11.34 million head of cattle (compared with 12.164 million head), including 5.6 million cows (compared with 5.84 million head).

From the point of view of market needs in 1981, the census results may be summed up in one sentence: There will be less meat. It is estimated that the procurement of beef and pork on the hoof will total slightly more than 2.4 million tons, or 100,000 tons less than was forecast as recently as several months ago.

A comparison with 1980 shows the scale of their decrease. It will 74.9 percent for pork on the hoof and 80.3 percent for beef on the hoof. Nothing may be done now about the level of the livestock population and procurement. A disastrous feed situation simply forced a reduction in the number of the herd. Furthermore, there are cases indicated by dairy cattle breeders especially, that cows receiving the same amount of feed give less milk, Therefore, it is not only the quantity of feed that is against breeding, but the quality as well. Poor feed deprived of mineral ingredients decreases the fitness of the livestock.

The decrease in the number of head is very profound. Also, the condition of the livestock is not good. Experts from the Department of Animal Production of the Ministry of Agriculture say that they do not remember such an unfavorable coincidence and, as far as cattle are concerned, there may never have been such a regression in history. And if it is a question of swine, this depends on just such a result, but it is believed that the most profound decrease will follow a little later. One cannot dispute the facts. But the question remains open: for how long?

Let us begin with swine. Let us venture the thesis that reaching the most critical point earlier is not at all bad, because there is a chance to begin reconstruction at the moment that is most favorable for it, that is, at the turn of the second and third quarters; and this may provide a larger procurement as early as 1982 rather than 1983.

That is a good time, because the farmer is no longer looking then at a glaringly empty stock larder, but at a field sown with grain and at planted potato fields. And seeing them, he makes a production decision. It is a psychological factor, but a very important one. However, in this spring season, optimism of the farmer must have support. There must be feed in the GS [Rural Parish Cooperative]. And there should be feed, because we import unprecedented quantites. A relative abundance of feed from the state pool will will induce a reduction in grain prices in transactions among neighbors and will allow for the purchase of grain on the free market.

A skillful, well-timed intervention in the feed market will, therefore, be a matter of key significance. But it is not the only condition. The piglet market will be an equally important matter. A significant decrease in the servicing of gilts and a reduction of more than 17 percent in the number of sows must inevitably bring about a lower supply of piglets, and prices may rise as suddenly as they fell in October and November, 1980. And although this will sound paradoxical, actions aimed at reducing the demand for piglets are necessary. It will be necessary to counteract a raising of prices to a level which eliminates the importance of breeding male piglets for fatback hogs. How is it to be done? The main buyers of material for fattening are the PGR [State Farms]. In view of this, their requirement has to be limited. And this could be done. It is already necessary now in the pigpens of the socialized sector to select at least 100,000 gilts for at least one reproduction for their own fattening pens, and if possible after this, piglets would be offered to individual farmers.

Also, maintaining a basic herd at the already critical level is not a trifling matter. In a work, preserving the reproduction centers is necessary at all costs. And here there are strong possibilities. Many farms specializing in the production of male piglets did not receive an equivalent in concentrated feeds. Precisely for them, a free-market sale of high-protein concentrates has to be opened without delay.

Rebuilding the cattle herds is significantly more complicated. We have young slaughter cattle, if that may be so expressed "offhand." In procurement there will be no more than 460,000 head in the meat market for this year and next year. A decrease in the number of cows (by 100,000) means not only less milk (10.1 billion liters are called for in the plan, and in 1980 there were 10 billion liters

with a higher number of head), but also a reduced sorting of the herd, that likewise lowers the supply of cattle on the hoof. Unfortunately, a relatively heavy farm slaughter of calves is being maintained. In December of last year, farmers raised only 43,000 claves, that is, 28 percent less than in 1979. The prognoses are, therefore, very pessimistic. There are few young slaughter cattle; cows have diminished, and consequently there will be fewer calves. In addition, calves are being butchered. Experts anticipate that the number of cattle may fall below 12 million, and thus to the 1972 level.

Speaking openly, there is no chance of coping with this problem during the course of either this year or next year. It is a question of biology. Recovering our lost positions requires 3½ - 5 years. Whether this will happen at the lower or upper limit is of importance. Therefore, when it will begin, and whether it will induce each farmer to breed cattle most of all and most efficiently, is all the more important.

It seems that the main concern here (because the peasant economy decides about the production of milk, the number of cows and, therefore, the number of the herd) is the inducement of farmers to simply make a decision concerning adjusting for cattle breeding. In order for this to take place, they must have the prospect of stable conditions for raising animals and the certainty that this production will be profitable. The current rise in prices for the procurement of milk does not satisfy the farmers. Also, they do not know--and they should--whether prices for this product, fundamental to cattle production, will be paced.

Economic assistance for cattle production is necessary because it is a course that demands a great deal of work. Production is not circumstantial but structural, requiring many sacrifices, absorbing much land area, and it is costly when the construction of stalls is concerned.

Simplifying, one may say that the breeding of swine or poultry may be opened for one cycle, and after delivery to a procurement point the "stall" may be closed. This is unthinkable in the production of cattle, especially the breeding of cows.

From right now, that is, as early as the last weeks before the new harvest, dairy-cattle breeders must obtain at least an additional 50,000 tons of feed. This is an indispensable minimum for sustaining milk production. A widely planned drive for selecting piglets for butchery will also be necessary, and in it the stocking of those farms which are able and willing to breed cattle. (Regional supply and demand are arranged very differently.) Peasant farms should have priority as well in purchasing piglets from POZH.

A calculation, and not only of the condition and expenses for today, is altogether an obligatory task. The situation in which agriculture, and consequently the whole nutritive complex as well as the food market as a result--of vital concern to all--has found itself, demands decisive and studied actions.

Twice lately I attended deliberations of the Sejm Commission for Agriculture and the Food Industry, and deliberations of an intercommittee team of the food department of the nutritive complex, devoted to the plans and budget for this year. The deputies accepted the proposals, though with reservation, but all took the position that we cannot afford to economize in agriculture and the food economy.

Despite appearances, this is logical. They also maintained that putting off decisions and delaying preventive steps should be most strictly prohibited.

Each communication, a signal from the countryside concerning agricultural production, should be a directive for immediate action. The results of January's census are just such a communication.

## Background, Causes of Shortage

Warsaw ZYCIE GOSPODARCZE in Polish No 7, 15 Feb 81 p 6

[Article by Jan Malkowski: "The Breeding Situation"]

[Text] The basis for meat production in Poland, as is known, is the breeding of pigs. Its development is observed and studied by various means. On the basis of agricultural censuses conducted four times a year (full censuses in January and July, representative ones in April and October), changes in the number of head and their structure are analyzed, the supply of pork on the hoof and the development of numbers of swine during subsequent periods are forecast. For this purpose, other information is put to use as well, such as an estimate of the harvest, the price of grain and potatoes, as well as of piglets in transactions among farmers, the procurement of fatback hogs and sows, the average weight of fatback hogs and an index of the servicing of gilts.

This information is analyzed with particular care, for it reflects swine-breeding conditions and farmers' decisions which, even in the course of 3 months, are subject to radical change. The spring of 1976 was very significant from this point of view. As early as the beginning of April, the number of swine on individual farms was 4.3 percent higher than the previous year. On the other hand, there were about 5 percent fewer sows. Other data, such as the slight decrease in prices for piglets, and in the index of servicing of sows, as well as an increase in grain and potato prices in transactions among farmers, indicated that changes would follow which would lead to a drop in swine numbers in the beginning of July, 1976. It was difficult to guess, however, that this decrease would be so great and amount to as much as 17 percent.

The basic reason for the profound breakdown in swine production was a poor harvest in 1975. It had such a strong effect because both grain and potatoes were involved (the grain harvest totaled 18 million tons, potatoes 46 million tons). Although these harvests did not deviate from the average, they did not manage in time to increase supplies of feed, which was indispensable due to the record high numbers of swine and cattle in that period. A rise in grain prices (of about 40 percent in the course of the year) in transactions among farmers attested to the lack of feed.

### What Follows from the Census?

At the beginning of 1981, the breeding situation looks incomparably worse than it was 45 years ago. Currently, as in the fiscal year 1975-76, swine production is on a "high wave," though it is already falling (see diagram 1). This term the feed balance is the most tense, and a reduction in feed resources produces a disproportionately large reduction in animal production.

On the other hand, the situation presents itself differently when swine production is in an initial phase of growth. Then, production increases even when economic feed resources fall off.

In 1980, grain harvests were only a little better than in 1979 and more or less the same as in 1975. Potato harvests, on the other hand, proved catastrophic and amounted to scarcely 24 million tons, as opposed to 50 million tons in 1979. Considering the reduced procurement of grain and potatoes, it may be said that their combined resources in terms of grain which remained at the disposal of farmers, are about 4 million tons of grain, that is, 13 percent lower than in the year 1979-80. Hay and beet leaf harvests were also much lower. In addition, this makes impossible any maneuver with concentrated fodder as well as with potatoes, which would normally come into play for the benefit of cattle or swine.

This general lack of feed became more profound, to make matters worse, by an acute decrease in the procurement of feed from the state (about 900,000 tons in the second half of 1980, that is, 20 percent compared with 1975). In certain cases, farmers bought less feed because they preferred to take the monetary equivalent. But in other cases they took the equivalent out of necessity because there was no feed. In every month this term, feed resources in the communal stores of cooperative societies were 40 to 50 percent lower than last year.

This time the effects of the bad harvest and the helplessness of the economy revealed themselves very quickly and in an alarming way. From initial data of the animal census on individual farms which was conducted at the beginning of January, 1981, it follows that the number of swine was 14.3 percent lower than the previous quarter. Of this, the number of piglets under 3 months of age was lower by 17.7 percent, male piglets from 3 to 6 months were lower by 10.1 percent and fatback hogs were lower by 13.9 percent. These data indicate that soon we will have to deal with a sharp drop in the procurement of pork on the hoof, which in the fourth quarter of 1980 was curbed by accelerated sale of fatback hogs and a liquidating sale of sows.

The present lesser number of sows of 17.3 percent--of these, bred sows are as much as 21.3 percent fewer--is the most disquieting. It will cause a great regression in piglet production in the first half of 1981 and a deepening reduction in the number of swine at midyear, of male piglets and fatback hogs especially. It is already certain now that the procurement of swine in 1981-82 will be at least as low as in 1976-77, and most probably lower.

Feed difficulties let themselves be felt in cattle breeding as well. Milk production suffered the worst on account of this. Milk production fell as early as the third quarter as a result of abnormal precipitation and floods, and fell significantly at the point when dairy feeding of cattle began.

In December, 1980, milk supplies diminished by about 20 percent compared with the previous year. Until then no reduction of such a scale had been ever recorded. Not only a lack of feed, but poor quality of hay is behind this. For this reason, it must be presumed that the decrease in milk procurement may prove still greater in the remaining winter months, and particularly in the spring. Leading to this will be a drop not only in the milk output of cows, but in the numbers of cows as well.

Milk production may, however, return to normal if there is a normal year in terms of atmospheric conditions. On the other hand, a drop in the number of cattle may cause a decrease in beef production this year and the next 2 years of about 75,000 tons.

What Is to be Done?

It would be necessary to strive by all means and methods toward restraining a further decrease in the number of swine in the coming months, and toward minimizing the illustrated "swine depression." The problem is that what was possible and indispensable has already basically been done.

In the autumn of 1980, the procurement price was raised by 13 zlotys per kilogram, that is, by about 30 percent. This increase would have been necessary even if the potato harvest had not been so bad, because swine breeding was not profitable enough. In a different feed situation this would have revived production. Now it gave no result, and will not in the near future. The most effective means in the current situation would have been a radical increase in feed supplies. Unfortunately, there was a decrease instead in the second half of 1980, a decrease which will probably prevail in the forthcoming months.

This brought about a significant rise in grain and potato prices in transactions among farmers and a curtailment of the fattening period. Grain prices already climbed up successively after harvests in 1979, reaching a record high level in mid-1980. This process continues to develop at a rapid rate. In December, 1980, prices for rye were about 30 percent higher than in December, 1979, and about 50 percent higher than December, 1978. Potato prices are also at a record high. Swine production must, therefore, be based entirely on concentrated fodder, and the condition of their resources has enormous significance.

The feed shortages may be alleviated by a curtailment of the fattening period and a reduction of the average weight of fatback hogs that have already been sold. On this matter, there is a government decision from November, 1980, which reduces the lower weight limit of fatback hogs qualifying as first class from 101 to 86 kilograms. Shortening the breeding period of fatback hogs leads to a savings on feed which, on some farms, can be put to use toward achieving a minimal weight for the remaining male piglets. And this will also allow for an earlier start of a new batch of fatback hogs. As a result, this may bring about a limit in the supply of piglets and, in consequence, increase demand for them, correct their prices and alleviate the tendency to liquidate the number of sows. Therefore, with the aim of conserving the number of sows, farmers should be fully informed that prices for piglets will be very high as early as the beginning stages of the year, and later, especially in connection with this, sow breeding and piglet production will prove exceptionally profitable.

Prices for Piglets

In Poland, the state has fixed prices for the procurement of pork on the hoof and, from time to time, these prices rise, but they never fall. On the other hand, prices for piglets are formed as a result of demand and supply and the influence of procurement of pork on the hoof. The basic factor determining demand for piglets and their price is the profitability of production of pork on the hoof.

For the past 12 months or so, this production has temporarily been exceptionally unprofitable due to high costs. This has led to a sharp decrease in demand for piglets as well as an increase in supply and a deep depression in prices.

Currently, prices for piglets continue to be low, although in December of last year their rate of decline fell from about 35 percent in November to about 20 percent. This February, prices for piglets will probably approach the February, 1980, level, or they will exceed it. From this moment on, more or less, the price curve for piglets will climb over several months. In the summer and autumn, production and supply of piglets will be low and demand very high. A pair of piglets in this period may cost from 3,500 to 4,000 zlotys. It is necessary to inform farmers precisely of this, so that some will begin to buy piglets earlier, when they will be cheaper, whereas others will be disposed toward breeding sows and producing piglets for personal use or sale. For this information to become reliable, it would be necessary to declare minimum prices right now upon which a contractual procurement of piglets and male piglets would be conducted in the second quarter and second half of the year. Without any risk, these prices can be about 50 percent higher than those that were in force in 1979, that is, in the period preceding their fall.

In the next months the supply of sows will be sharply decreased, first through a reduction in the numbers of sows that has taken place, and next as a result of a tendency to prolong the period of exploitation of sows. In the spring term, wide-scale action should also be taken to select young gilts from procurement and to direct them to farms as breeding material, in order to accelerate by this means the reconstruction of the number of sows.

9309
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PREPARATION OF EFFECTIVE LAND USE POLICY STUDIED

Bucharest REVISTA ECONOMICA in Romanian No 10, 6 Mar 81 pp 4-5, 7

/Article by Ion Bold: "Complete and More Effective Use of Land"/

/Text/ Nicolae Ceausescu said, "If we are to carry out the new agrarian revolution in Romania, we must first emphasize the most productive use of the nation's entire agricultural area and its whole territory."

As a basic resource in the extensive process of building the fully developed socialist society, the land is taking on a new significance in keeping with the many demands of the national economy and the new agrarian revolution. Largely in view of the limited extent of the agricultural area and the need of its rational use, Party Secretary General Nicolae Ceausescu's recent directions call for uniform regulation to conserve and husband the land as a natural result of its evaluation as the most valuable and irreplaceable possession of any nation. By providing for its best use, each generation must leave it more fertile and abundant and better systematized.

In fact, in historical retrospect our civilization was born of the bond between people and land. The land has served and still serves as a basis for development of agriculture, forestry, industry, transportation and the other sectors of the rural and urban economy, and it is essential to the existence and growth of the national wealth and the entire people's welfare.

Nicolae Ceausescu's speech at the Second Farmers Congress of 19-21 Feb 1981 contains some guidelines for complete and more effective use of the nation's financial resources:

- As a main national resource, the land is the decisive factor for agricultural production and the critical means to our socioeconomic development. This requires the most productive use of the nation's entire agricultural area and its whole territory.

- The land is the basis for attaining production levels that will meet industry's needs for raw materials, the scientifically substantiated demands of public consumption, and the other requirements of the national economy.

- Since the land is limited in extent, the complete and most productive use of every square meter as well as firm control of all forms of waste are matters that concern all those who hold lands in one way or another.

- Enhancement of the productive potential of the land, projects to check soil erosion and eliminate excess moisture, and the other improvements that have proved effective are basic to complete exploitation of the entire agricultural area.

- Along with the greater productive potential of the lands, the diverse production conditions also require better use of the technical and economic means, the labor force and the specialists, in an environment created by uniform organization and systematization of the territory.

Priority on Knowledge and Improvement of the Land Reserve's Potential

Some 63 percent of Romania's whole territory is in agricultural use, and 65.6 percent of the latter is arable land, 30 percent pastures and hayfields, 2 percent vineyards and 2.6 percent orchards. Due to the high proportion of the productive agricultural area, agriculture is one of the main sectors of the national economy and the main holder of the land resources.

The productive potential varies markedly with the different conditions of relief, climate, hydrography, lithology etc. The agricultural lands suffer from a number of deteriorating processes due to the bad effects of some natural and operational factors. According to the data of the Basic Study for Protection and Improvement of the Productive Capacity of the Land Reserve (1980), 62.2 percent of the total agricultural area consists of lands in various stages of deterioration, and only 37.8 percent are agricultural lands with a high productive potential. The analyses show that half of the arable area suffers from processes of deterioration and that about 40 percent of the vineyards and orchards are on eroded lands. The greatest deteriorated areas are among the pastures and hayfields, 62.7 percent of which are on lands that have lost much of their productive capacity.

As regards relief, only 56.7 percent of the total agricultural area consists of practically horizontal lands (up to 5 percent slopes) subject to mechanization without restriction, 9.8 percent contains slopes (5-10 percent) with minimal restrictions requiring contour operations, 8.5 percent contains slopes (10-20 percent) with heavy restrictions for tractors on wheels, requiring contour operations and crops in strips and bands under grass, and 25 percent contains slopes (over 20 percent) with very heavy restrictions, difficult to mechanize, and requiring special improvements.

According to productive capacity classified in five grades of quality, about two-thirds of the agricultural area suffers from deterioration processes (in various stages of progress), while most of the areas with a high fertility potential are in the arid climatic zones.

In view of this situation, extensive programs were instituted to develop and ameliorate the land reserve, mainly by land improvement projects. The table below indicates the volumes attained or planned (for 1985) in thousands of hectares.

| Year | Drainage | Irrigation | Erosion control |
|---|---|---|---|
| 1965 | 789 | 230 | 40 |
| 1970 | 1,300 | 731 | 435 |
| 1975 | 1,965 | 1,475 | 983 |
| 1980 | 2,695 | 2,405 | 1,615 |
| 1985 | 3,525 | 3,005 | 2,565 |

This extensive program is correlated with some major water management projects to provide the discharges needed for irrigation and to draw off the freshets into the reservoir lakes. We now have 972 such lakes, with a total capacity of 6.7 million cubic meters. For flood control, in addition to embankment operations extensive projects have been undertaken to create reservoir lakes to draw off the freshets. A total volume of about 2.2 billion cubic meters of water was withdrawn in 1980. Operations were also performed to regulate watercourses and to protect and consolidate the banks for a distance of about 8,154 km, 31,400 hectares of unproductive lands were forested, and an area of 54,000 hectares of underproductive and unproductive lands was determined suitable for installing fish hatcheries.

Accordingly a consistent effort is being made to conserve and make rational use of the entire land reserve and to minimize allocations of lands for industrial and agrozootechnical constructions or other purposes. If withdrawal from agricultural use is unavoidable, it can be done only with complete compensation for the agricultural areas through reclamation of nonagricultural or nonproductive lands. In the 1976-1980 period the arable area was increased by 112,500 hectares, so that the provision of the Directives of the 12th Party Congress for 10 million hectares of arable land will be carried out by 1985 by placing 166,500 more hectares in agricultural use. The operations to organize the territory and improve the land play an important part in this.

In the light of the party secretary general's directions, we must reinforce the protection against any attempts to diminish the cultivated areas by confining the locations of various investment capacities to lands in categories IV and V and prohibiting them on lands in categories I and II. (The importance of the problem is clear when we consider that from 1974 to the start of 1980 alone 205,060 hectares were withdrawn from agricultural production for investment capacities, including 67,094 hectares permanently withdrawn. The obligation of those who receive agricultural lands for other purposes to reclaim an equal area from unproductive lands does not have the expected effect if, for example, lands of fertility grades I and II are occupied and lands of grades III and IV are reclaimed.)

The Basic Study for Protection and Improvement of the Productive Capacity of the Land Reserve, with plans for all communities and counties and on the national level, was completed at the end of 1980, making it possible to substantiate all forecasts, programs, studies and plans for developing the various sectors and activities in correlation with rational and efficient use of the land resources. Moreover, the completion of the zoning of agricultural production at the end of 1976 on the basis of the appraisal of the lands, the continuation of the programs for agrochemical and soil studies, and the land cadastre provided the background for integrating use of the land resources in the general development of the economy as part of the plans for regional socioeconomic development, systematization and territorial organization.

Systematization and Territorial Organization As Factors for Harmonious Development

As objective necessities for the coordinated and harmonious development of the areas, systematization and territorial organization have an important part to play in the broad process of industrialization, urbanization, modernization of the economy and management of the land resources.

A general system of territorial organization was devised that provides for integration of all regional development in an overall plan, beginning with national, county and communal systematization, going on to organization of the territory between units (between councils) and within them, and ending with the orders, construction designs and construction specifications of the various investment projects.

Accordingly, prevention of anarchic use of the lands, protection against alienation of the lands of better quality from the agricultural resources, rational distribution of the productive forces, and provision for an arrangement that will permit harmonious integration of the various activities and normal development of the various economic sectors (with territorial organization as the definitive factor) are the direct results of the comprehensive program promoted by the party and state for application of a policy of territorial organization on the national level in a general and uniform system.

Territorial organization is defined as threefold, economic, social and physical, eliminating the disparities among the various areas, providing for harmonious development, and improving the entire population's environment.

In agriculture, through coordinated location of the investment projects and better use of the material and human resources, coordinated regional development and uniform organization of the territories of the uniform agroindustrial councils create the organizational-regional conditions for efficient use of the financial resources by determining rational crop rotations according to the favorable areas regardless of the form of ownership.

Some essential principles appear in the present stage of territorial organization that mark the evolution of the concepts and the role of territorial organization in the harmonious exploitation of the territory:

- In the first place, an essential principle emerges in the form of the general connection of the various forms and activities of territorial organization with the general development and the overall treatment, as elements in a synthesis, of the many aspects flowing from the interdisciplinary and intersectorial nature of the actions.

- Territorial organization is best effected solely in close coordination with the overall economic development (in connection with the processes of industrialization, agricultural modernization, and urbanization.

- By rationalizing the use of space according to the present and future social requirements, territorial organization (in connection with exploitation of resources) also provides environmental protection as well as the means of avoiding imbalances in the occupancy of the space. In this way it lends a new significance to the concepts of the biosphere and ecosystem.

- The approach of making more effective use of space (by harmonizing the various national programs, studies of forecasting and development of the various sectors of the economy, zoning of agricultural production, etc.) provides for integration of the systematized development of each territory in the general development of the nation, as well as conservation and best use of the resources.

Accordingly the qualitative leap was achieved by developing the concepts. The quantitative leap (or generalization) still awaits a uniform solution to many problems.

For a Uniform Concept in Management of the National Territory

In the new stage of socioeconomic development, some control over regional development must be instituted if the resources, and especially the land resources, are to be managed in the higher interests of society by conserving and exploiting them in the course of a balanced development.

This makes it vital to concentrate the coordinating efforts on behalf of complete knowledge, exploitation, systematization, organization and improvement of the territory within a single national body. We think the State Committee for People's Councils' Problems can solve the problem by coordinating the following activities: geographic-topographic work throughout Romania, which is now coordinated by the MAIA /Ministry of Agriculture and the Food Industry/ but has not been developed in keeping with the requirements; the general land survey which, with proper organization, would provide a regular and continuous record of the land reserve, by means of a series of technical economic and legal actions, for all categories of land holders; and territorial organization for all research, planning and administrative units so that the treatment and solution of the problems, from systematization of the territory and communities to organization of the uniform agroindustrial councils' territories and of each particular use (arable, pasturage, vineyards and orchards etc.), will be entirely coordinated with the overall development.

For the same reasons it would also be advantageous to combine the county planning institutes with the offices for the land survey and territorial organization, forming a single planning body on the county level for systematization and territorial organization.

This would make it possible to coordinate development of the network of future settlements, inventories and equipment with territorial reorganization of the uniform agroindustrial councils. Owing to insufficiently coordinated treatment of the problems, only 75 of the 129 rural settlements that became urban settlements in the 1976-1980 period are now seats of agroindustrial councils, and in the present period only 78 of the 140 communities that will become urban settlements are planned to be seats of agroindustrial councils. Formation of future agrarian-industrial settlements must be based upon coordinated development of the territory as a whole, wherein the community and the territory constitute a single whole.

At the same time we stress the point that territorial reorganization of the state and cooperative uniform agroindustrial councils must be preceded by organization of the territory between councils, for purposes of improving the size and scope of each council in keeping with the area where it is located, the production structure, the network of settlements and communications, etc. as integrated in the overall systematization of each county's territory.

On that basis organization of the territory under each council can begin, and each council will provide for complete use of the human and land resources; coordinated location of all future developments; accelerated urbanization, as the coordinating settlement becomes the polarizing center in the agroindustrial council's jurisdiction and the territory is uniformly equipped; formation of viable and efficient units through better use of the natural and human resources, concentrated and specialized production, and equipment of the units and territories; rational crop rotations for every agroindustrial council as a basis of better location of crops in order to exploit the productive potential of all arable lands; uniform development of

animal husbandry and cultivation of orchards, vineyards and truck gardens according to the national programs but in the light of the overall problems and nature of each council; and arrangements for more complete use of the mechanical and technical resources and the water management systems.

The limitations of the land resources and development of the crops in keeping with the ecological conditions even more obviously require observance of the threefold and inseparable zoning-planning-territorial organization relationship as a basis for promoting systems of rational agriculture that will conserve and enhance the productive potential of the lands and improve its use by technical and economic means.

Furthermore the irrigation and drainage systems must be constructed not only according to relief, the volume of earthworks and the specific investment but also to provide for efficient exploitation of the land, the water management system and the machine-tractor system. The construction methods of locating and plotting land improvement projects and the method of plotting the hydrological system must be revised to subordinate them to the requirements of agricultural production. Since the latter [illegible] upon the land, the tools of production (tractors, machines, land improvement systems etc.) must be adjusted to the land. It is important to understand that it production and not the means of production that must be made profitable.

All the areas for which land improvement projects are feasible must be determined in the light of the entirety of the natural and economic factors and in correlation with the provisions of agricultural production zoning and of the various national programs, harmonized with the provisions of the Basic Study for Protection and Improvement of the Productive Capacity of the Land Reserve.

In view of the nature of agricultural production and its dependence on land and on the way the various natural and material resources are integrated, the general planner in agriculture must be the one who organizes the territory, including the development of agricultural production, and who must subordinate all future investments and developments in the territory to agricultural production.

Meanwhile every uniform council must be staffed with a technician to look after the recording of the land reserve and the application of the territorial organization plan and of the measures to improve the productive capacity, while the CMA's [Agricultural Mechanization Stations] should have specialized subunits to eliminate excess moisture, check soil erosion, and improve and maintain the agricultural roads.

Promotion of total development based on an overall plan also requires preparation of a uniform land code covering all activities in connection with management of the land resources, systematization and territorial organization.

And finally, I think it is time to improve the demarcation between the agricultural land reserve and the forest reserve by eliminating the enclaves and unsuitable territorial forms and creating compact, solid masses correlated with the requirements of soil conservation and the overall facilities and equipment.

Promotion of a uniform land policy cannot be left to partial and local empirical solutions or those dictated by departmental interests. It must constantly and necessarily depend upon the principles of land economics as a science of management of land resources (and possibly as a subject for study in specialized higher education), integrating all actions and disciplines contributing to the latter in order to best meet the current and long-range requirements.

2286
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MACHINE BUILDING MINISTRY RESPONDS TO SPARE PARTS PROBLEM

Bucharest SCINTEIA in Romanian 10 Mar 81 p 2

[Interview with Gheorghe Bujorescu, deputy director in the Ministry of the Machine Building Industry, by Corneliu Carlan: "A Final 'Part' to the File on Spare Parts for Agriculture?--the Response of the Ministry of the Machine Building Industry to SCINTEIA's Investigation"; date and place not given]

> [Text] Since the beginning of the month, articles that dealt with a problem of acute topicality for agriculture--the finishing of the repairs on tractors and agricultural machines--have been published in many issues of the newspaper SCINTEIA. The articles pointed out the consequences of the tardiness in furnishing the entire quantity of spare parts expected from a number of machine-building units, as well as the pledges of tardy enterprises. In connection with this problem, we present today the viewpoint of the Ministry of the Machine Building Industry, in a conversation with Comrade Gheorghe Bujorescu, a deputy director in the ministry.

[Question] What is the situation with the furnishing of spare parts for agricultural equipment, especially those necessary for repairing and maintaining the equipment that will operate in the spring campaign?

[Answer] At the level of the ministry, we pursue the achievement of 276 important components, spare parts for tractors and agricultural machines, which are produced in 12 enterprises. Up to the beginning of March, the pledges made were fulfilled or even overfulfilled for 195 components, with arrears being registered for 81 components. There are bigger delays for motors and engine blocks for 45-horsepower tractors, engine blocks, gear pinions and secondary shafts for 65-horsepower tractors, 65-horsepower drive shafts from the Codlea Machine Enterprise, and a number of parts for agricultural machines, as Comrade Marian Curelea, a deputy director general in the Ministry of Agriculture, stated in the newspaper SCINTEIA. These are arrears that have created difficulties for the activity of repairing the agricultural equipment that is to operate in the spring campaign.

[Question] What are the causes of the arrears?

[Answer] The units that have not completely honored their obligations regarding the furnishing of spare parts for agriculture have been confronted in past months with

difficulties generated by the failure to provide materials for the foundries--sand, furan resin and cast iron--and in the forging and mechanical-working sectors they have lacked certain alloy steels, special tools and abrasives. But, besides these things, the failure to achieve certain components is also due to the failure of the managements of the supplying units to rigorously pursue the steady and complete manufacture of them.

/Question/ As is observed, some difficulties with which the respective machine-building units were confronted went beyond their possibilities of solution. What has the ministry done to help them?

/Answer/ We have made a number of advances to the appropriate forums of the suppliers, especially in metallurgy, chemistry and the mining industry, to the Ministry of Supply, requesting compliance with the provisions in the balance sheets for materials and with the economic contracts. Unfortunately, the problems raised have been solved only in part. For this reason, we foresee further difficulties in supplying the materials that I mentioned earlier.

/Question/ In an interview given to the newspaper SCINTEIA, Comrade Costica Leu, a director in the Ministry of Agriculture, stated that the pledges made by the Ministry of the Machine Building Industry are, without exception, smaller than the contractual obligations. Why this situation?

/Answer/ The statement corresponds partially to reality. As a rule, the level of the requirements of the Ministry of Agriculture was determined by combining the quantities of parts that were to be made in the last 2 months of last year in the contracts for that year, including the arrears, with the contractual obligations for the first 2 months of this year, without taking into account the maximum possible employment of the production capacities in our plants in this period. Under these conditions, our pledges took into account the concrete, real possibilities of production in the respective period.

/Question/ What steps has the ministry taken to provide in all the subordinate units the conditions for furnishing without delays all the remaining quantities of parts to agriculture?

/Answer/ Besides the components that we coordinate at the level of the ministry, the list of spare parts for agriculture exceeds 5,000 components, whose achievement is pursued by the industrial centrals and the supplying enterprises, in collaboration with the customers--the bases of the Ministry of Agriculture. So that the units can fulfill their contractual obligations regarding spare parts, we have provided the quotas of materials that they need. Unfortunately, the deliveries of some materials are not on a par with the quotas, allotments and contracts. I referred to this matter earlier. Regarding the current situation with the manufacture of spare parts, there has also been taken the step that the making of certain components will be directed to other units that have production capacities available. A system for priority supervision of the semiproducts in the foundries and forges has been organized and steps have been taken to expand some capacities in the processing sectors where bottlenecks have occurred, through additional supplies of equipment and the changing of technologies. In essence, both the ministry and the centrals and

enterprises bear the responsibility for completely fulfilling the contracts regarding the furnishing of spare parts for agriculture and we will act firmly in this regard.

/Question/ For years, at the end of each winter, our newspaper has dealt with the subject of the arrears in the furnishing of spare parts to agriculture. When and how will the basic problem of steadily and completely furnishing the contracted parts be solved?

/Answer/ I feel that the basic solution to the problem of providing spare parts for agriculture depends on many factors, some of them being mentioned earlier. Regarding the obligations of our ministry, in this field we have every reason to state that at the end of this year we will have a situation greatly changed for the better in comparison with the previous years. In this regard, we have adopted a number of measures for creating the necessary capacities on a par with agriculture's requirements for spare parts, both in the hot sectors and in the mechanical-working sectors, for raising the technical and technological level of the manufacturing.

/Corneliu Carlan/ Nothing remains but for these measures to find their efficient implementation, so that this "file" can be closed permanently.

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END

# END OF FICHE

# DATE FILMED

May 4, 1981